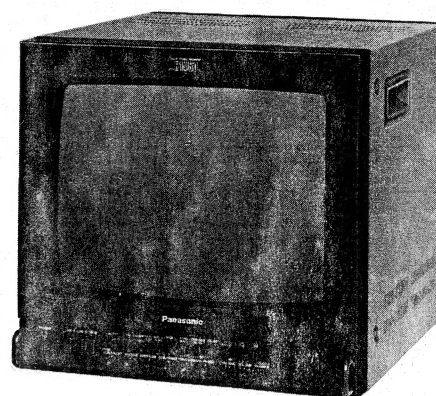


Service Manual

Colour Video Monitor BT-H1450Y/YG G16M Chassis

YG.....U.K. Only



The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

Specifications

System:	Interlaced, PAL/ SECAM/NTSC 3.58/NTSC 4.43	S-Video Output:	Y signal 1.0Vp-p, C signal 0.285Vp-p, 75 Ω or HIGH impedance (Manual), MINI DIN 4P type connector
Power Source:	220-240V~, 50Hz (240V U.K. Only)	VTR Terminal:	
Power Consumption:	85W	Video Input;	1.0Vp-p \pm 2dB, 75 Ω
Picture Tube:	14" (36cm) diagonal High Resolution CRT 0.31 mm Dot Pitch, 90-degree deflection	Audio Input;	1.0Vrms, 22k Ω or more, 8 pin connector
Speaker Output:	1.5W	Component: (RGB & YP_BP_R switchable)	
Video/Audio Terminals: (LINE A/LINE B)		RGB:	R; 0.7Vp-p \pm 2dB, 75 Ω , BNC type connector G; 0.7Vp-p \pm 2dB, 75 Ω , BNC type connector B; 0.7Vp-p \pm 2dB, 75 Ω , BNC type connector
Video Input;	1.0Vp-p \pm 2dB, 75 Ω or HIGH impedance (Auto), BNC type connector	YP_BP_R:	Y; 1.0Vp-p \pm 2dB, 75 Ω , BNC type connector P _B ; 0.7Vp-p \pm 2dB, 75 Ω , BNC type connector P _R ; 0.7Vp-p \pm 2dB, 75 Ω , BNC type connector
Video Through Out;	Automatic Termination Opener, BNC type connector	Sync.:	0.3Vp-p \pm 2dB, 75 Ω , BNC type connector
Audio Input;	0.5Vrms, 22k Ω or more, phono type connector	Audio:	0.5Vrms, 22k Ω or more, phono type connector
Audio Through Out;	Phono type connector		
S-Video Input;	Y signal 1.0Vp-p, C signal 0.285Vp-p, 75 Ω or HIGH impedance (Manual), MINI DIN 4P type connector		

Panasonic

Ext. Sync.: 4.0Vp-p $\pm\frac{6}{25}$ dB negative, 75 Ω
with automatic loop-through
output, BNC connector (2)

Resolution: 750 TV lines (Horizontal)

Picture Linearity: Vertical within $\pm 5\%$
Horizontal within $\pm 7\%$

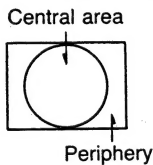
Frequency Response:
Line; 100Hz to 8MHz ± 3 dB
RGB; 100Hz to 8MHz ± 3 dB

AFC Time Constant; 0.8 ms; FAST
3 ms; SLOW

Retrace Time: Horizontal retrace time
within 10 μ s
Vertical retrace time
within 1 ms

Colour Temperature: 6500K, 9300K

Convergence Error:
Central area; Less than 0.5 mm
Periphery; Less than 0.7 mm



Chromacity Cordinate:

		x	y
EBU	R	0.640 ± 0.010	0.330 ± 0.010
	G	0.290 ± 0.010	0.600 ± 0.010
	B	0.150 ± 0.007	0.060 ± 0.007

Dimensions:
Width; 356mm
Depth; 419mm
Height; 341mm

Weight: 14.5kg

Operating Temperature: 0°C~+40°C (32°F~104°F)

Operating Humidity: 20%~80%

Warm Up: 30 minutes to meet specifications

Accessory: AC Power cord
BT-H1450Y; TSX3104
BT-H1450YG; TSX3105

Option: Rack Mounting Kit (BA-131)

Specifications are subject to change without notice.
Weight and dimensions shown are approximate.

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Safety Precaution

GENERAL GUIDELINES

1. It is advisable to insert an isolation transformer in the AC supply before servicing a hot chassis.
2. When servicing, observe the original lead dress, especially the lead dress in the high voltage circuits. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
3. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations, are properly installed.
4. Before turning the monitor on, measure the resistance between B+ line and cold side chassis earth. Connect the \ominus side of an ohmmeter to the B+ lines, and the \oplus side to chassis earth. Each line should have more resistance than specified, as follows:

B+Line	Minimum Resistance
103V (IC804 ①)	100k Ω
20V (IC751 ③)	3k Ω
18.5V (TPA85)	50k Ω
15V (IC802 ①)	100 Ω
12V (IC802 ③)	100 Ω

5. When the monitor is not used for a long period of time, unplug the power cord from the AC outlet.
6. Potentials, as high as 24.0kV \pm 1kV are present when this monitor is in operation. Operation of the monitor without the rear cover involves the danger of a shock hazard from the monitor power supply. Servicing should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high voltage equipment. Always discharge the anode of the picture tube to chassis earth before handling the tube.
7. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Turn on the monitor's power switch.
3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the monitor, such as screwheads, connectors, control shafts, etc.
When the exposed metallic part has a return path to the chassis, the reading should be more than 1M Ω .
When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

LEAKAGE CURRENT HOT CHECK (See Fig. 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5 k Ω , 10 watt resistor, in parallel with a 0.15 μ F capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Fig. 1.
3. Use a high impedance AC voltage meter to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 500 μ A. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the monitor should be repaired and rechecked before it is returned to the customer.

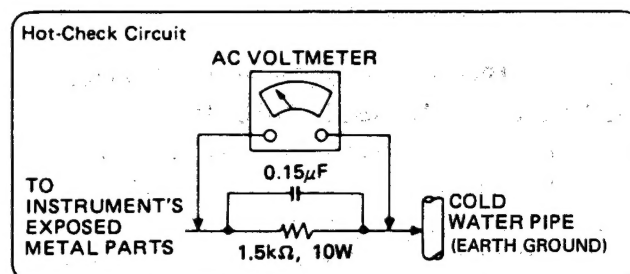


Fig. 1

X-RADIATION

- WARNING:**
1. The potential source of X-Radiation in Monitor set is the High Voltage section and picture tube.
 2. When using a picture tube test jig for service, make sure that the jig is capable of handling 25.0 kV without causing X-Radiation.

NOTE: It is important to use an accurate, periodically calibrated high voltage meter.

1. Turn the Brightness control (R5115), the Contrast control (R5111) and the RGB Contrast control (R5132) fully counterclockwise.
2. Measure the High Voltage. The meter (electrostatic type) reading should indicate $24.0\text{kV} \pm 1\text{kV}$. If the meter indication is out of tolerance, immediate service and correction is required to prevent the possibility of premature component failure.
3. To prevent an X-Radiation possibility, it is essential to use the specified picture tube.

HORIZONTAL OSC. DISABLE CIRCUIT TEST

This test must be made as a final check before the set is returned to the customer.

1. With the rear cover removed, supply a nominal 120V AC to the set, turn on the power switch.
2. Set the customer controls to their normal operating position.
3. Add DC voltage (+25V) to pin ④ of IC551.
4. Confirm that the picture falls out of horizontal sync.
5. If this does not occur, the Horizontal Osc. Disable Circuit is not operating. Follow the Horizontal Oscillator Disable Circuit Repair Procedures before the set is returned to customer.

REPAIR PROCEDURES OF HORIZONTAL OSCILLATOR DISABLE CIRCUIT

1. Connect a DC voltmeter between capacitor C515 \oplus on the A-board and chassis earth. If nearly +24.7V is not present on that point, find the cause. Check R521, C515 and D558.
2. Connect a DC voltmeter between pin ⑮ of IC501 on the A-board and chassis earth. If nearly +3.0V is not present on that point, check R509, R510, R512, R542, IC551 and IC501.
3. Carefully check the above specified parts and related circuits and parts. When the circuit is repaired, the Horizontal Oscillator Disable Circuit Test must be made again.

Circuit Explanation

HORIZONTAL OSCILLATOR DISABLE CIRCUIT

The positive DC voltage supplied from the cathode of D558 for monitoring the high voltage is applied to pin ④ of IC551 and to the base of Q903 through R909.

The voltage at the emitter of Q903 is regulated by Zener Diode D901. Under normal conditions, the voltage applied across the base and emitter of Q903 is not sufficient to cause emitter current to flow and holds the transistor cut off.

If the high voltage exceeds the specified level, the positive DC voltage supplied from the cathode of D558 increases. The voltage through D558 is dividing by R909 and R908, and applied to the base of Q903. If V_{be} is nearly more than +0.7V, the transistor Q903 turns on, and the collector voltage of Q903 lowers which is connected to the base of Q902.

Therefore Q902 turns on, and the collector voltage of Q902 increases, which is connected to the base of Q901. Consequently Q901 turns on, and collector current of Q901, which is connected to the pin ⑮ of IC501, begins to flow simultaneously. This causes the horizontal oscillator frequency to increase, and also causes loss of horizontal synchronization. (Fig. 2)

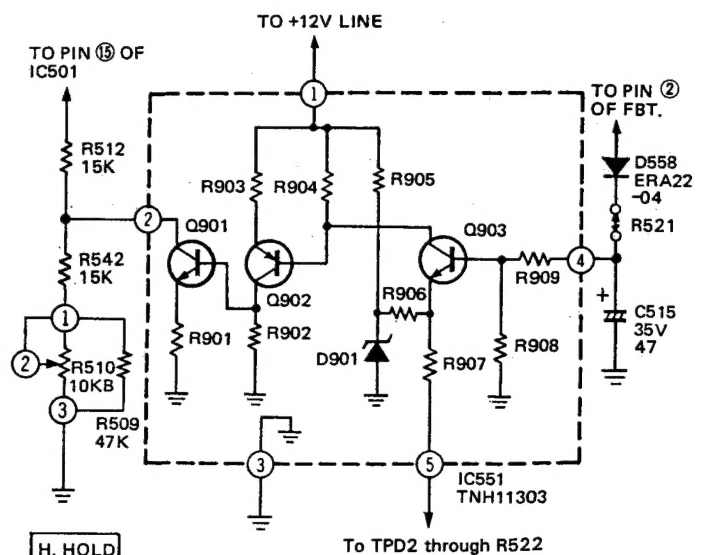
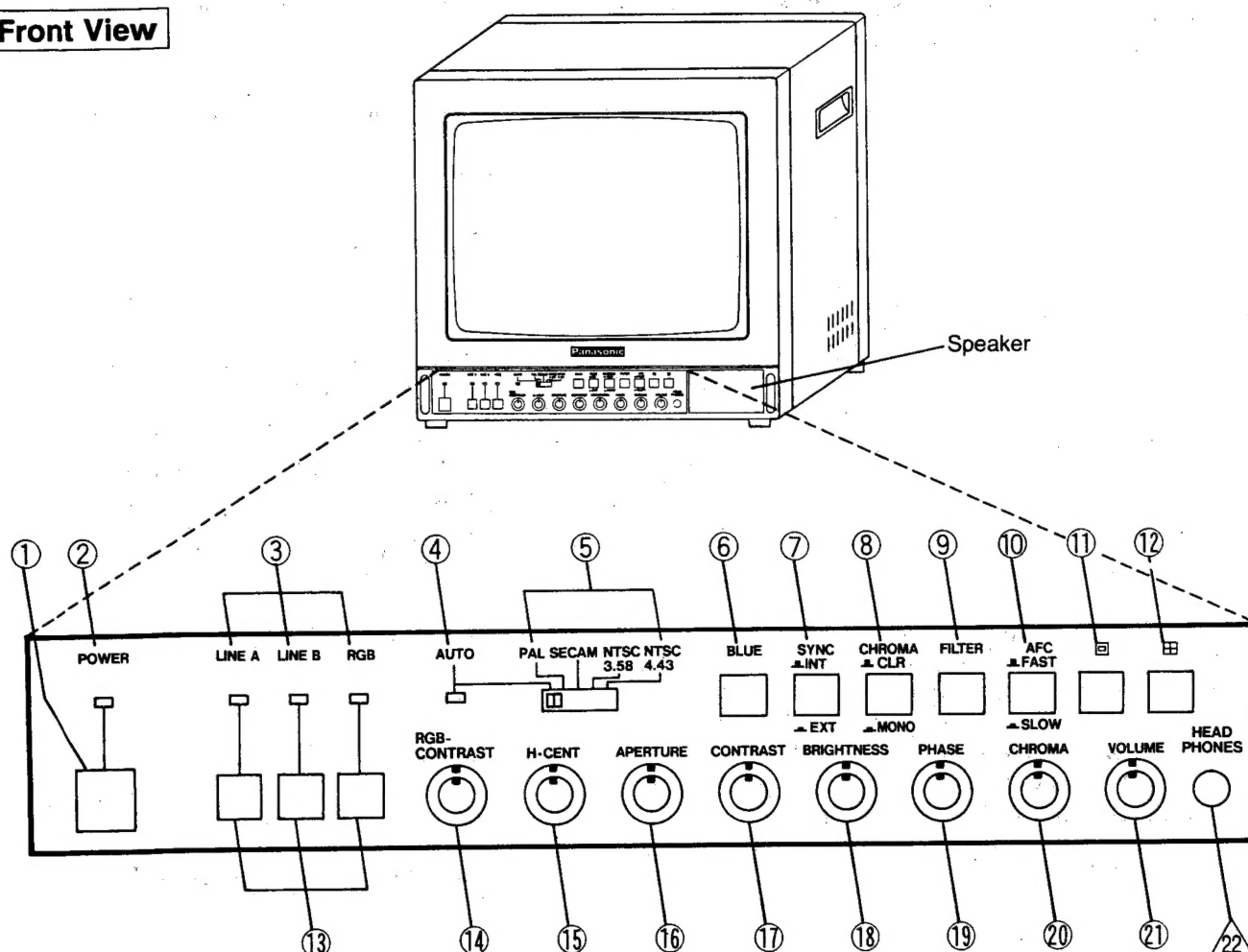


Fig. 2

Location of Controls and Switches




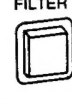
Front View



- ① **Power Switch**
Power ON/OFF
- ② **Power Indicator**
This indicator will be light when power is ON.
- ③ **Input indicators**
These indicators will be light when it is selected input channel.
- ④ **Auto indicator**
This indicator will be light when TV system selector switch is AUTO mode.
- ⑤ **TV System Selector Switch**
This switch is normally set at AUTO. However, if the picture can not be received at Auto mode appropriately. Set the switch to the desired position.
- ⑥ **Blue Signal Only Switch**
Depress this switch to observe BLUE SIGNAL in Black and White. This makes it easier to adjust chrominance and hue (using SMPTE colour bar display) and increases visibility of video tape dropouts and playback noise.
- ⑦ **Sync (INT/EXT) Selector Switch**
INT: The monitor operates on the sync signal from the displayed composite video signal.
EXT: The monitor operates on an external sync signal supplied from the EXT. SYNC connector on the rear panel.
- ⑧ **Chroma Switch**
Depress this switch to observe Black and White picture.

⑨ Filter Selector Switch

ON or OFF the switch so that the picture becomes better.

Broad casting system	Switch position	Kind of filter	Purpose
NTSC		Comb filter: ON	This is for high horizontal resolution.
		Trap filter: ON	This is for high vertical resolution.
PAL/SECAM		Trap filter: ON	This is the normal colour position on PAL or SECAM signal.
		Trap filter: OFF	Use this position with camera signal, Black/White signal, or monochrome mode on the Mode selector switch to obtain higher resolution.

⑩ AFC Selector Switch

Selects the AFC time constant.

FAST : This mode is fast enough to correct for VTR jitter. Use the position to obtain a stable playback picture from a VTR.

SLOW: This mode is slow enough to display the time base instability introduced by mechanical jitter, in the VTR playback signal.

⑪ Underscan Switch 

Depress this switch for underscanning.

The display size is reduced by approximately 5% so that four corners of the raster are visible.

⑫ Horizontal/Vertical Delay Switch 

Depress this switch to observe the horizontal/vertical sync signal. The picture is delayed horizontally/vertically and the horizontal/vertical sync signal is displayed in the left/center of the screen. Picture brightness is automatically increased for easy observation.

⑬ Input Selector Switches

Three signal inputs (LINE A/LINE B/RGB) can be selected.

⑭ RGB Contrast Control 

Decrease Increase

⑮ H.CENT Control 

Left Right

⑯ Aperture Control 

Soft Sharp

⑰ Contrast Control 

Decrease Increase

⑱ Brightness Control 

Dark Bright

⑲ Phase Control 

Green Red

⑳ Chroma Control 

Low Colour High Colour

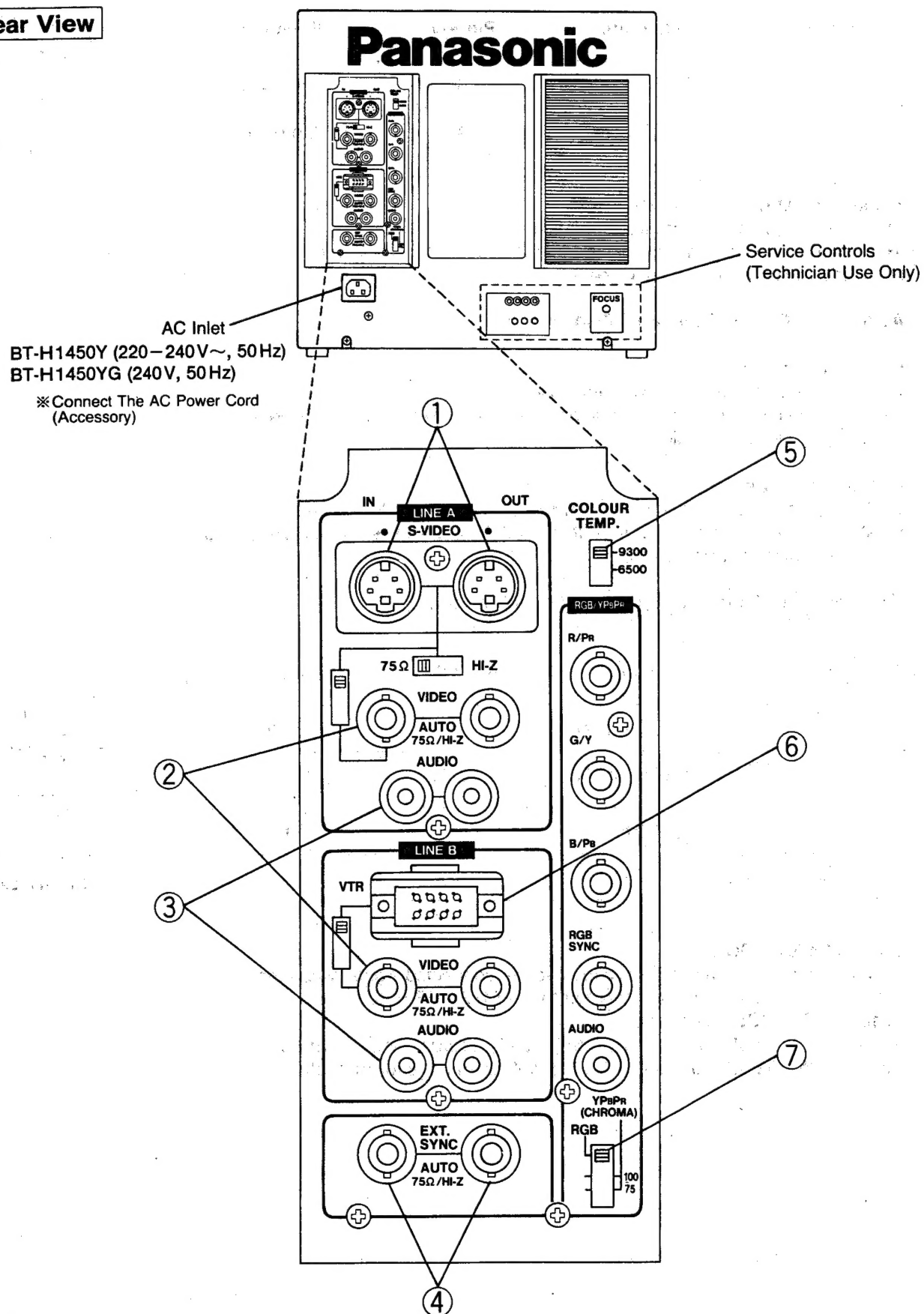
㉑ Volume Control 

Min. Max.

 Headphones Jack

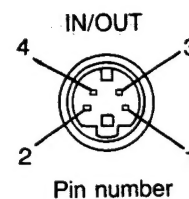
Location of Terminals

Rear View



① **S-Video Input/Output Terminal (4 pin)** Luminance signal and chroma signal input/output terminal

Pin No.	Function	Pin NO.	Function
1	Earth (Luminance)	3	Luminance
2	Earth (Chroma)	4	Chroma



② **Video Input/Output Terminals (BNC)**

These terminals have automatic termination.

When BNC connectors are connected into IN and OUT terminals, the 75 Ω termination will be automatically opened.

③ **Audio Input/Output Terminals (RCA Phono)**

④ **EXT.SYNC Terminal**

This terminal also has automatic termination.

If a sync signal is input into this terminal, the monitor works to lock the selected line to this external sync signal.

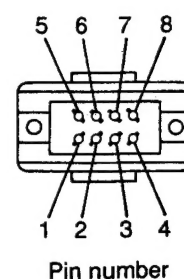
⑤ **Colour Temp. Selector**

6500K: Set the colour Temp. switch to 6500K for broadcast use.

9300K: Set the colour Temp. switch to 9300K to give the colour temperature for non-broadcast use.

⑥ **VTR Terminal (8 pin)** VTR video/audio signal input

Pin No.	Function	Pin NO.	Function
1	Audio signal IN	5	Earth
2	Video signal IN	6	Earth
3	Earth	7	Earth
4	—	8	—



⑦ **Chromatic level Switch**

This switch is for setting chromatic level to the connected signal, when the component signal (YP_BP_R) is connected to the RGB / YP_BP_R terminals.

Position RGB: RGB signal only.

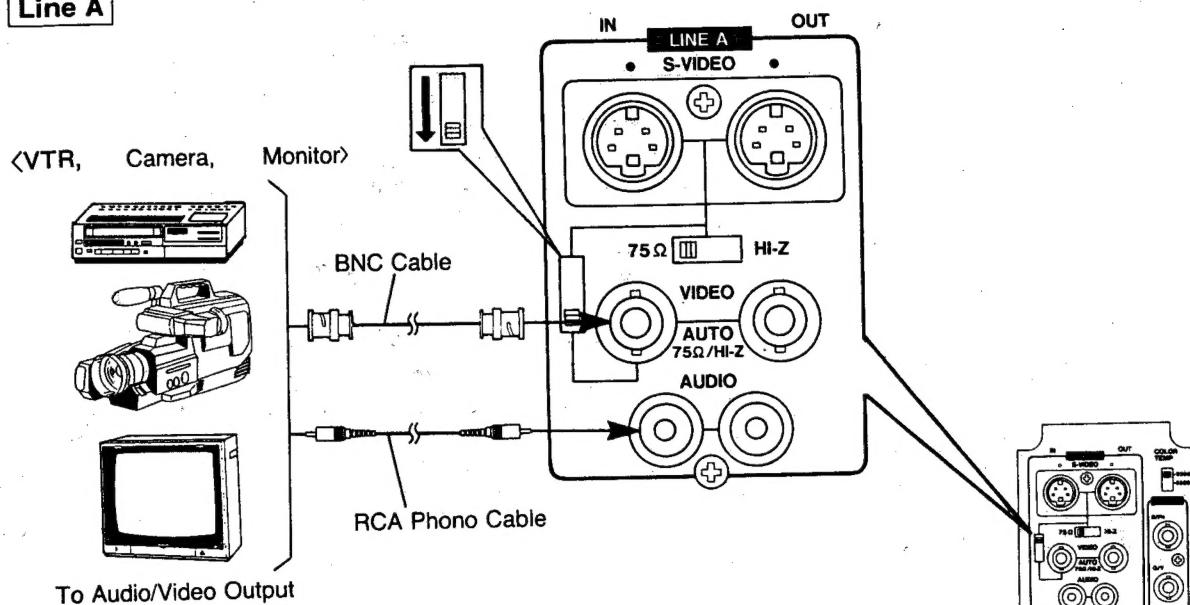
Position 100: YP_BP_R for use with (MII) 100% colour bar standard system.

Position 75 : YP_BP_R for use with 75% colour bar standard system.

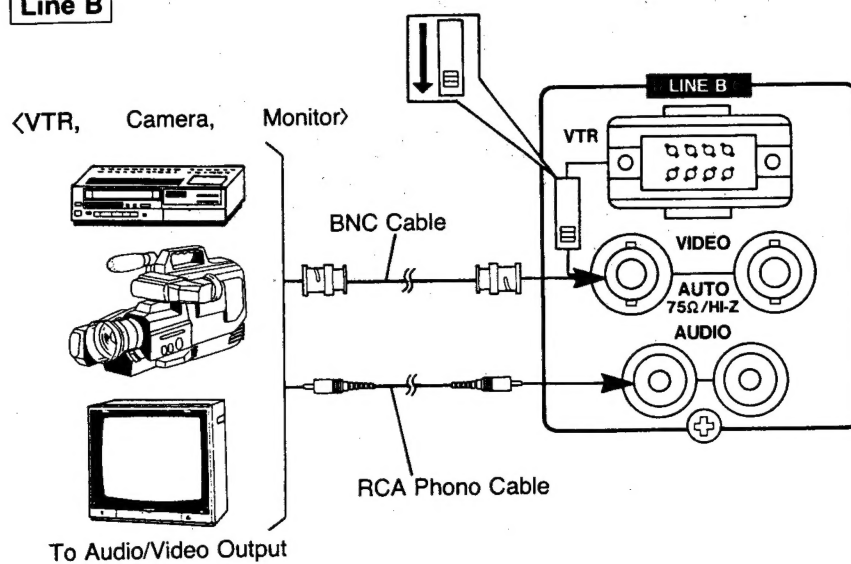
Connections

1. Video (BNC) Terminal

Line A

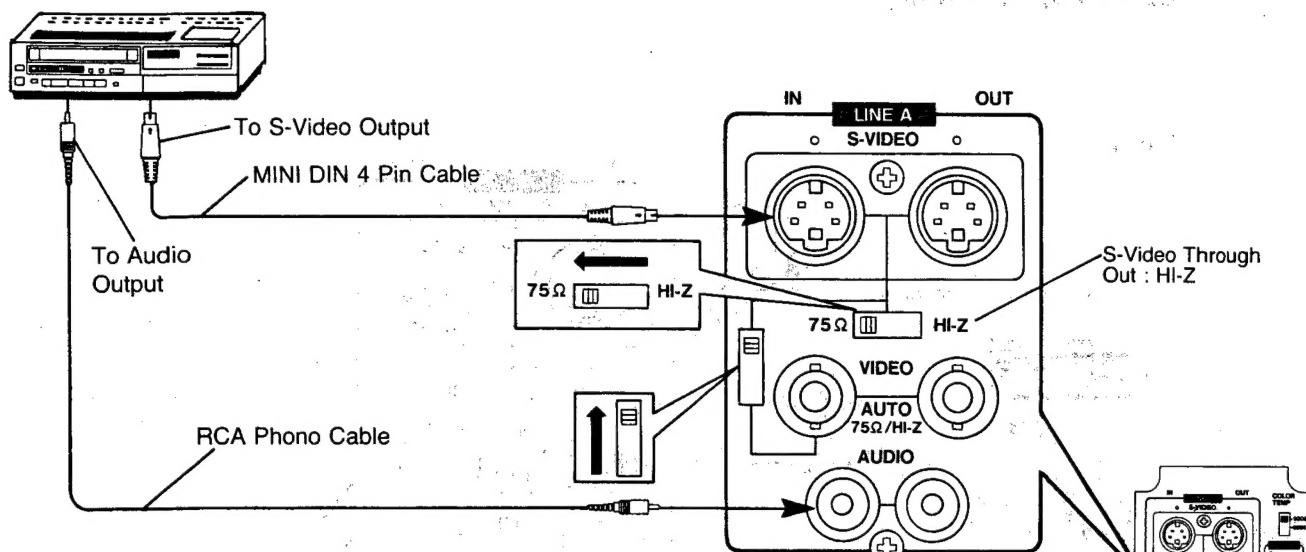


Line B



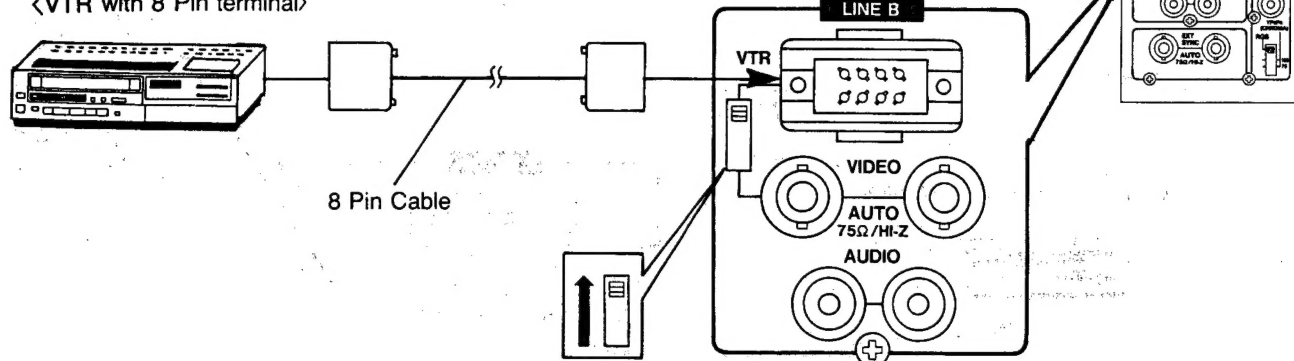
2. S-Video Terminal

〈VTR with S-VIDEO terminal〉

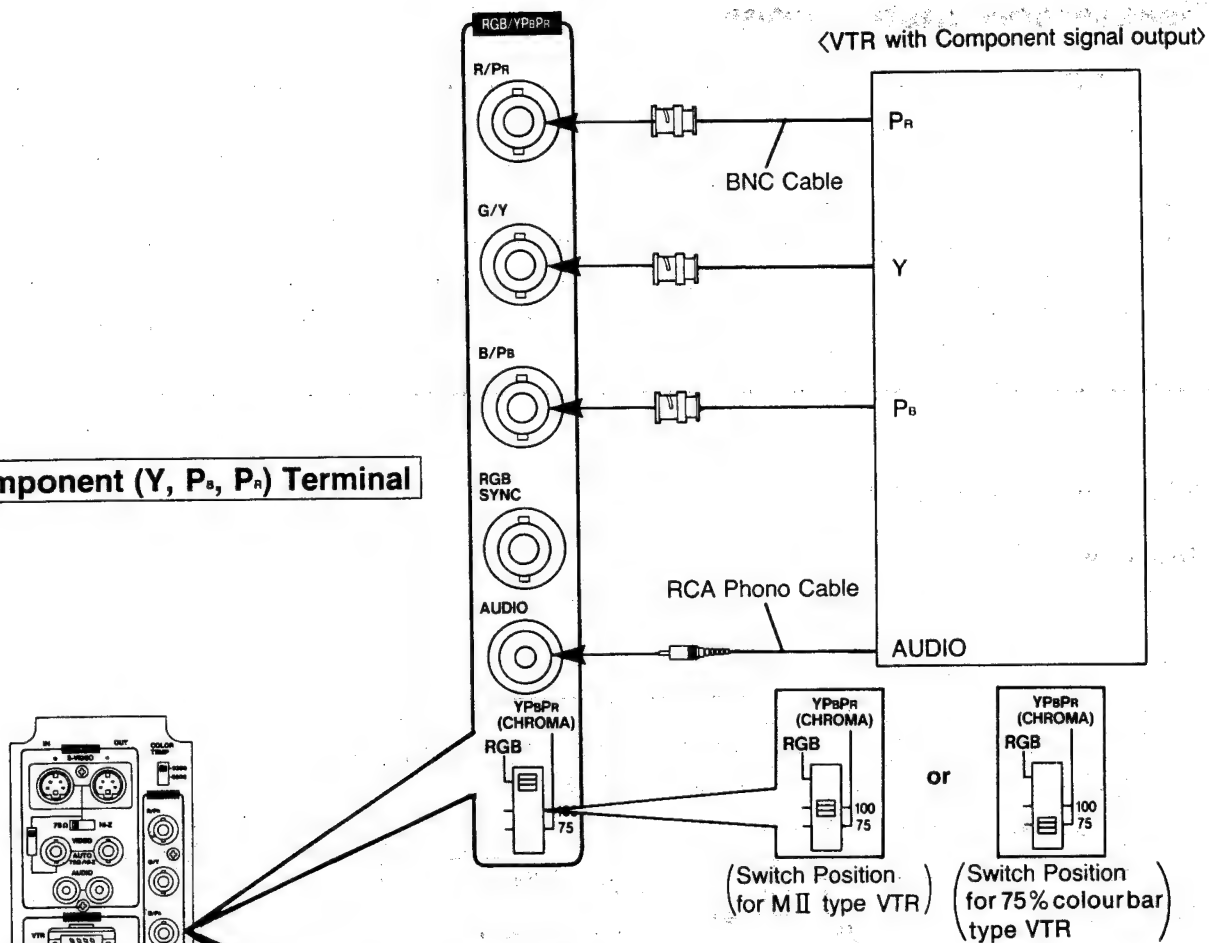


3. VTR (8 pin) Terminal

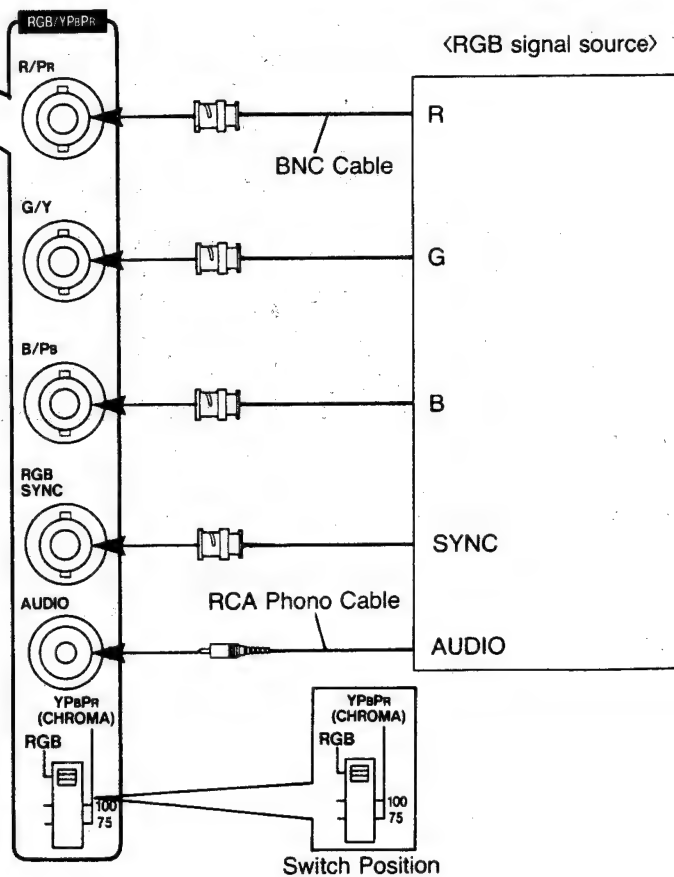
〈VTR with 8 Pin terminal〉



4. Component (Y, P_B, P_R) Terminal



5. RGB Terminal



Disassembly Instructions

WARNING:

1. When turning over a P.W. board to adjust it, be sure to lay on insulating material under it in order to prevent shorting.
2. P.W. boards and wires should not be pulled forcibly, but be handled carefully.
3. Before disassembly, remove the AC plug from the wall outlet.
4. When removing the cabinet take care not to damage the neck of the Picture Tube.
5. Printed boards and connectors should be handled with care-avoid handling them forcibly!
6. When handling the A-P.W. board with the power ON, there is a risk of an Electric shock if you use the COLD side heat sink while working on the HOT side of the chassis.

CIRCUIT BOARD LAYOUT

(Rear View)

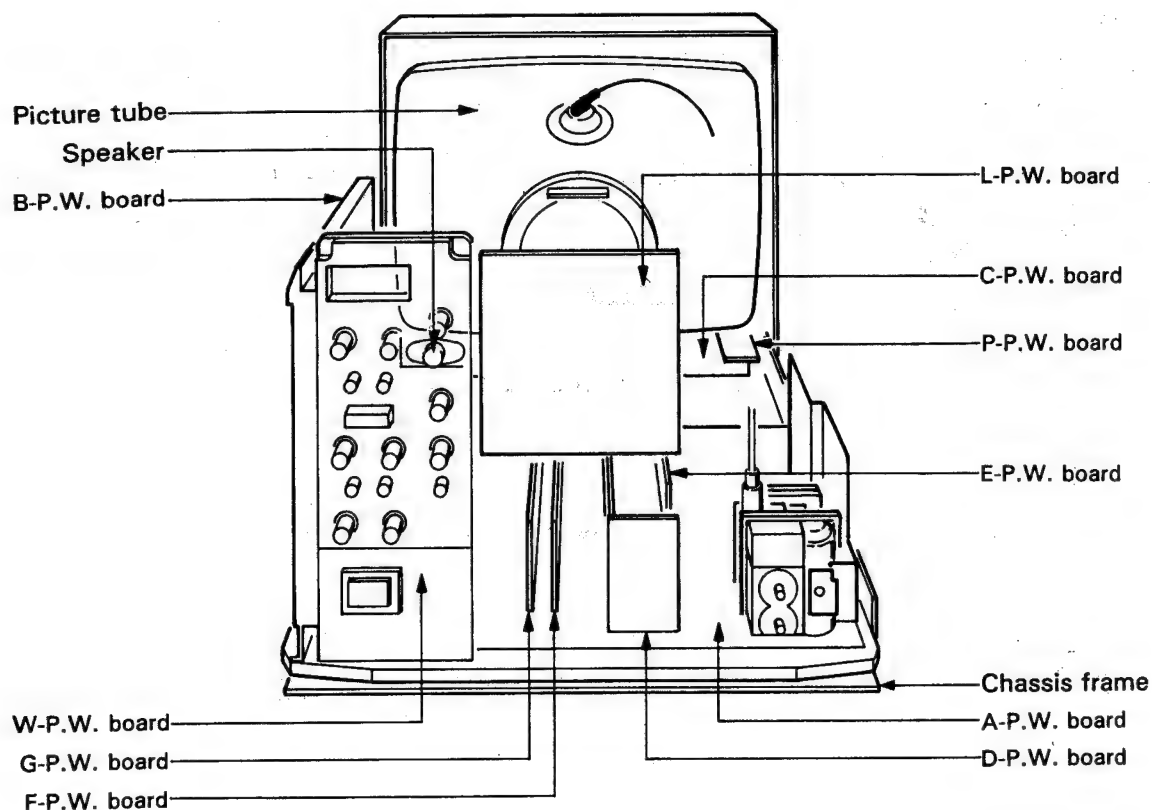
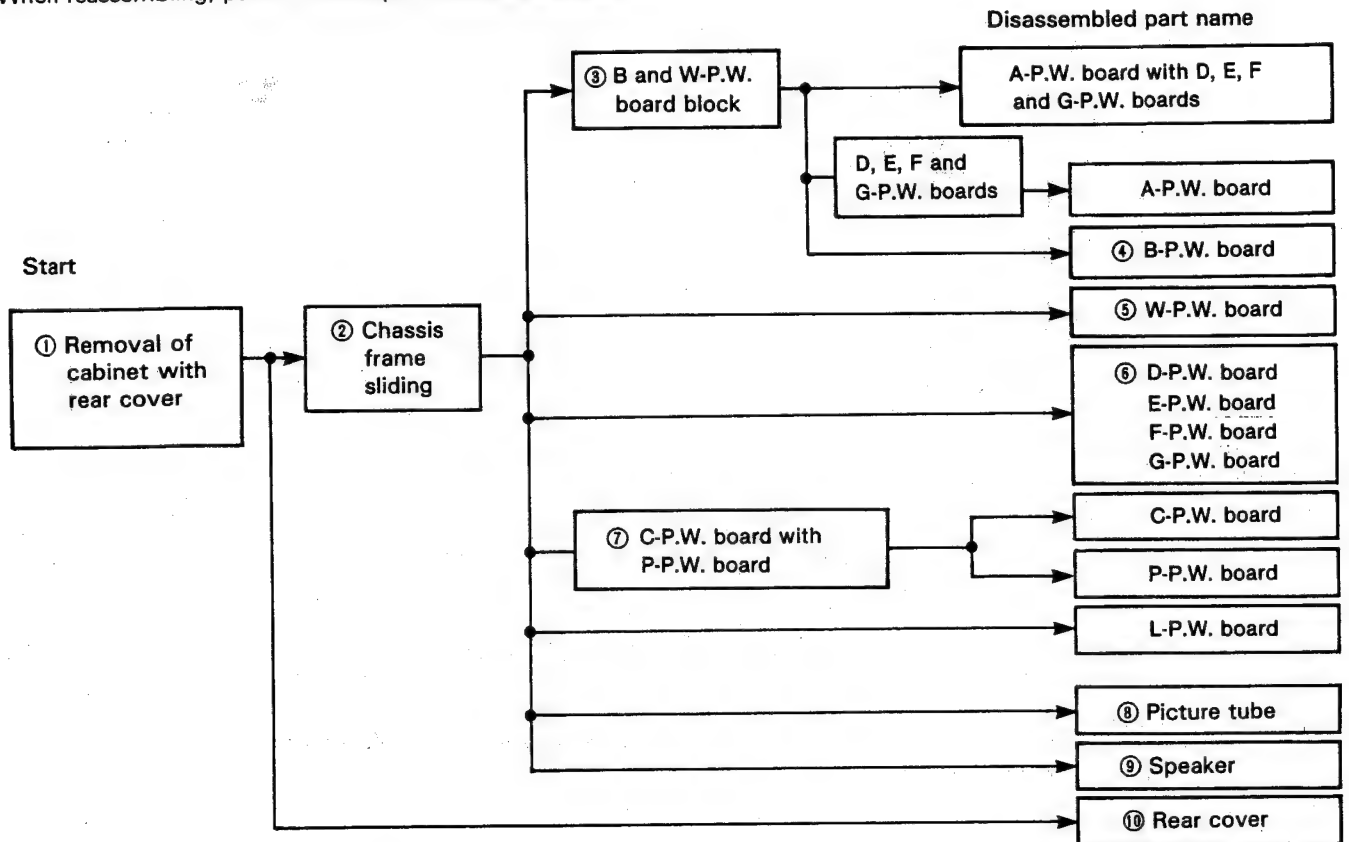


Fig. 1

DISASSEMBLY FLOWCHART

This flowchart indicates disassembly items of the cabinet parts and circuit boards in order to find the items necessary for servicing.

When reassembling, perform the steps in the reverse order.



1. Removal of Cabinet with Rear Cover

1. Remove 4 screws (A).
2. Remove 5 screws (B).

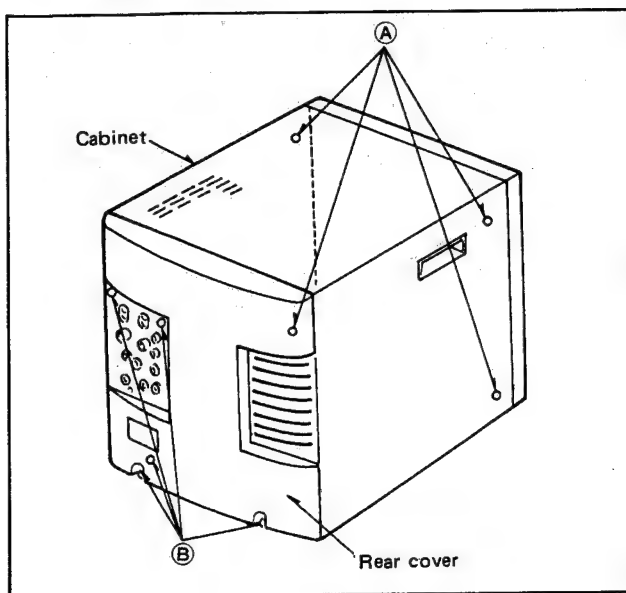


Fig. 2

2. Chassis frame sliding

Slide the chassis frame as shown.

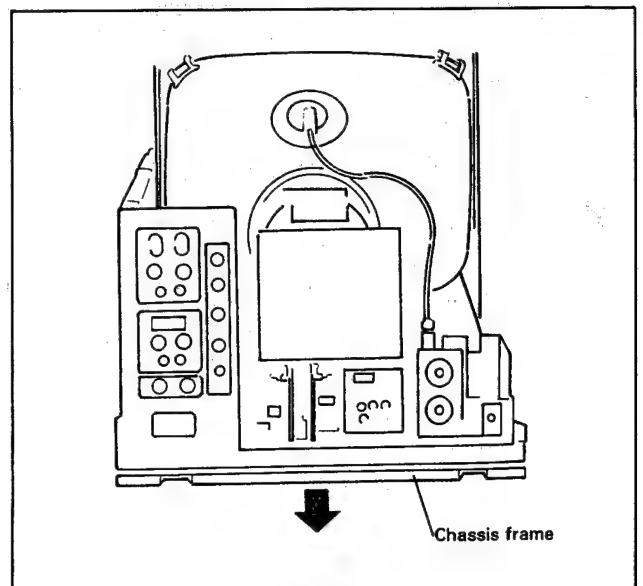


Fig. 3

3. Removal of B and W-P.W. board block

1. Remove 3 screws ③.

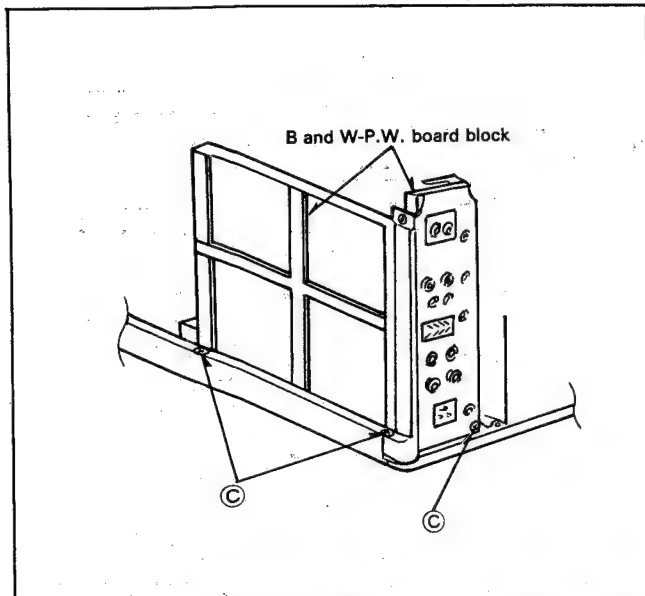


Fig. 4

2. Remove B and W-P.W. boards block while paing attention to the connectors.

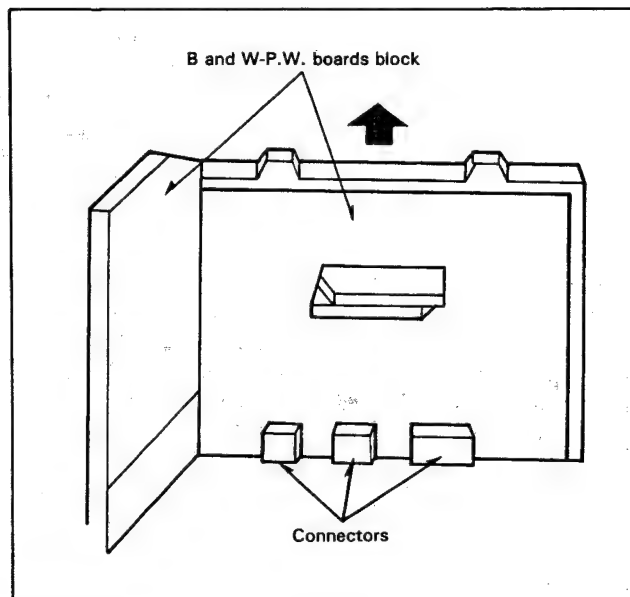


Fig. 5

4. Removal of B-P.W. board

1. Remove B and W-P.W. boards block as shown in Fig. 4 and 5.
2. Slide B and W-P.W. boards as shown in Fig. 6.

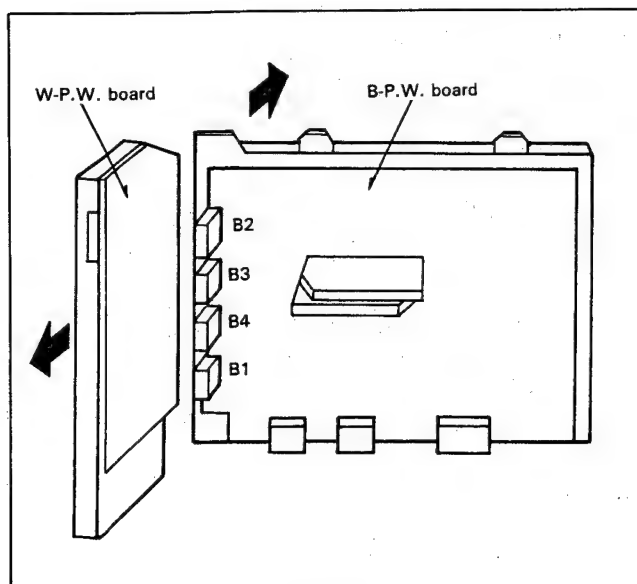


Fig. 6

5. Removal of W-P.W. board

1. Remove 3 screws ④.
2. Slide W-P.W. board as shown in Fig. 7.

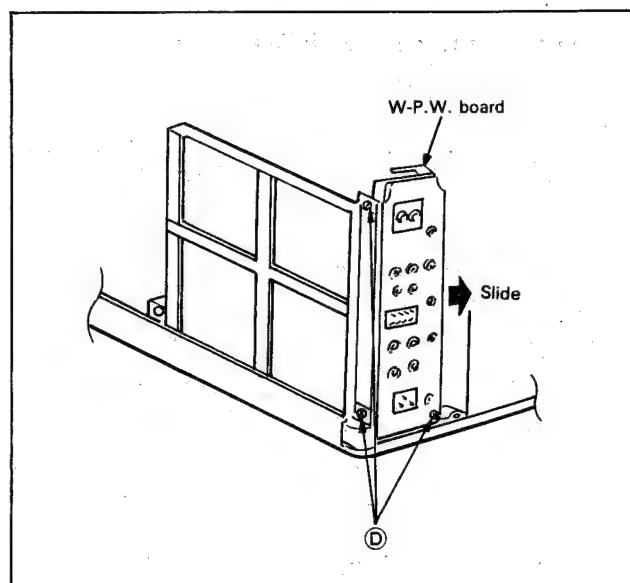


Fig. 7

6. Removal and check of D, E, F and G-P.W. boards

1. Pull out the connectors of the each P.W. board (A26, A27, A29, A33, A14, A15, A16, A23 and A24 on the A-P.W. board).

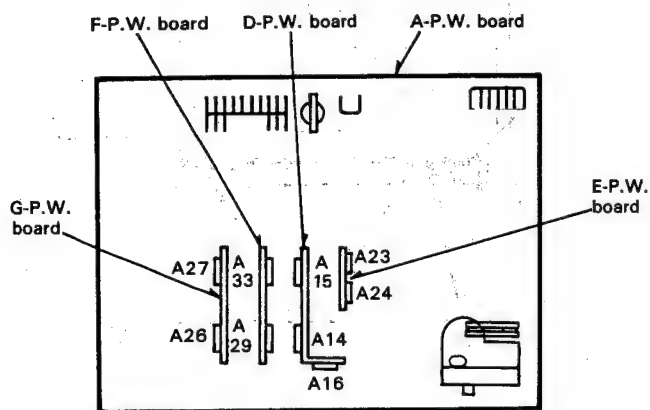


Fig. 8

- * When each connector is removed open the hook by small flat screwdriver.

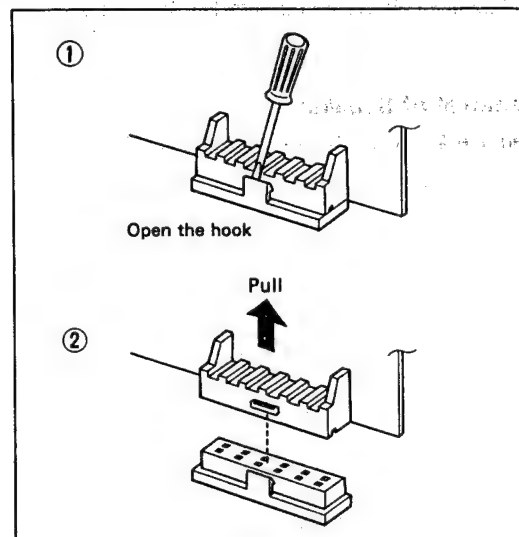


Fig. 9

2. Use the **extension cable** when each P.W. board is checked because those P.W. boards have no space mutually.

Necessary extension cables are as following table.

Ref. No.	Kind of extension cables	Part No.	Q'ty	
Ⓐ	4 Pin	TZS507027	2pcs.	Length is about 30cm.
Ⓑ	6 Pin	TZS507028	1pc.	
Ⓒ	9 Pin	TZS507029	2pcs.	
Ⓓ	10 Pin	TZS507030	4pcs.	

3. Connect each P.W. board by extension cables as shown.

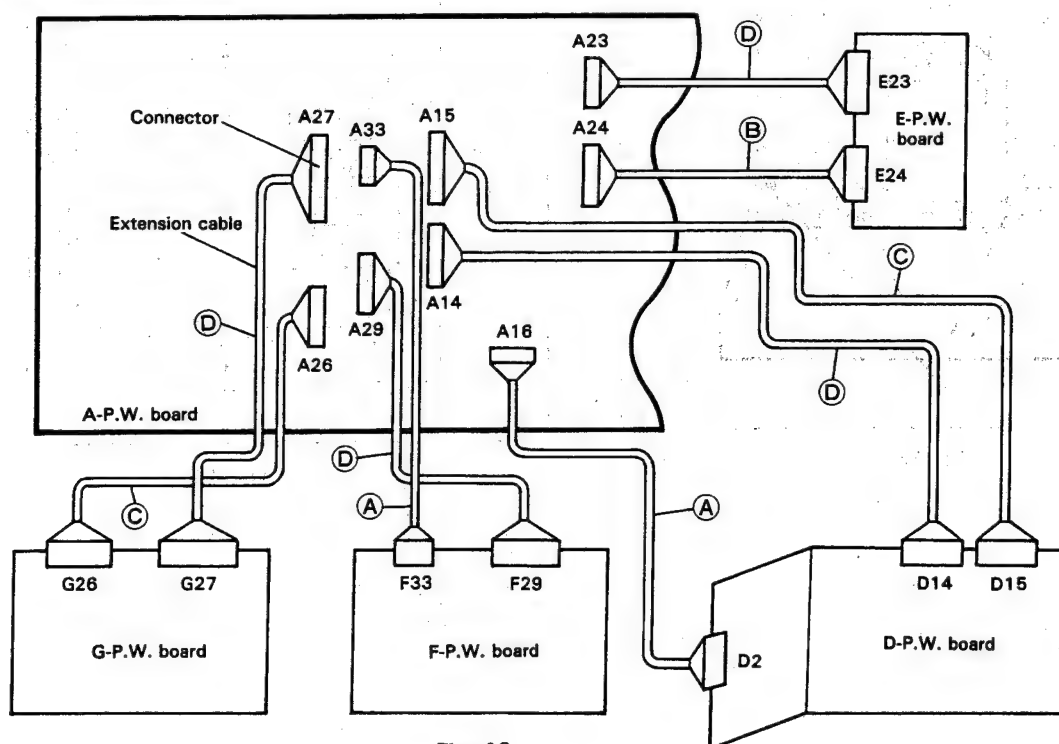


Fig. 10

7. Removal of C-P.W. board with P-P.W. board

1. Pull out 8 control knobs on the front side.
2. Remove 2 screws ⑤.
3. Pull out C-P.W. board with P-P.W. board.

8. Removal of Speaker

Remove 4 screws ⑥ as shown in Fig. 11.

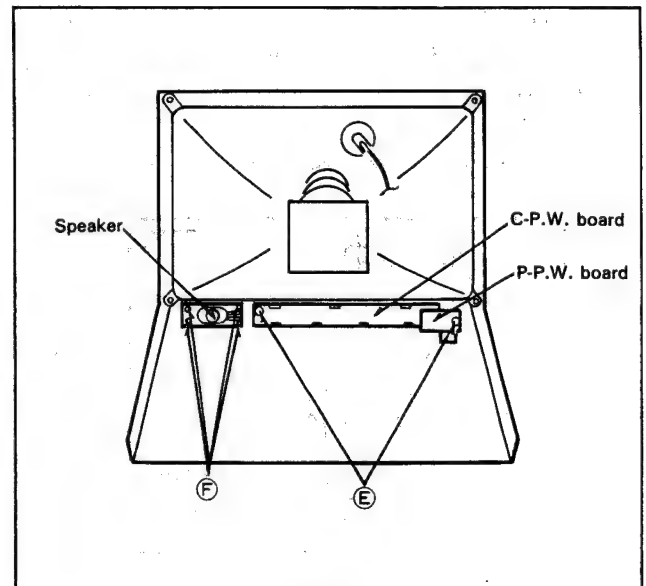


Fig. 11

9. Removal of Picture Tube

1. Remove L-P.W. board and the deflection yoke.
2. Remove 4 screws ⑦.

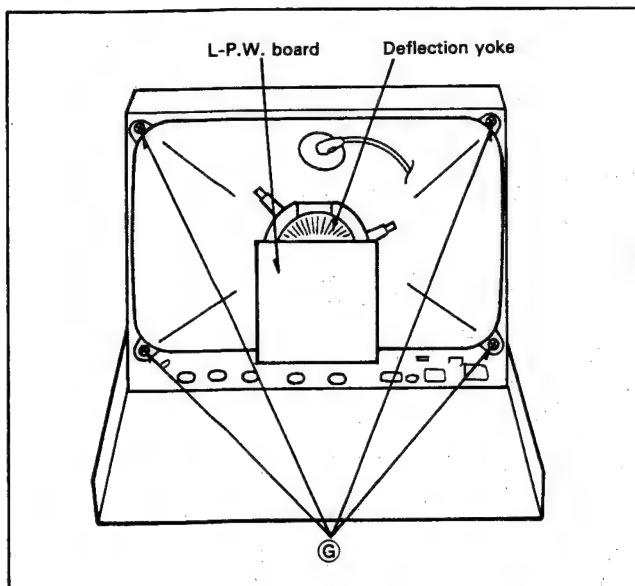


Fig. 12

10. Removal of Rear Cover

Remove inner 5 screws ⑧.

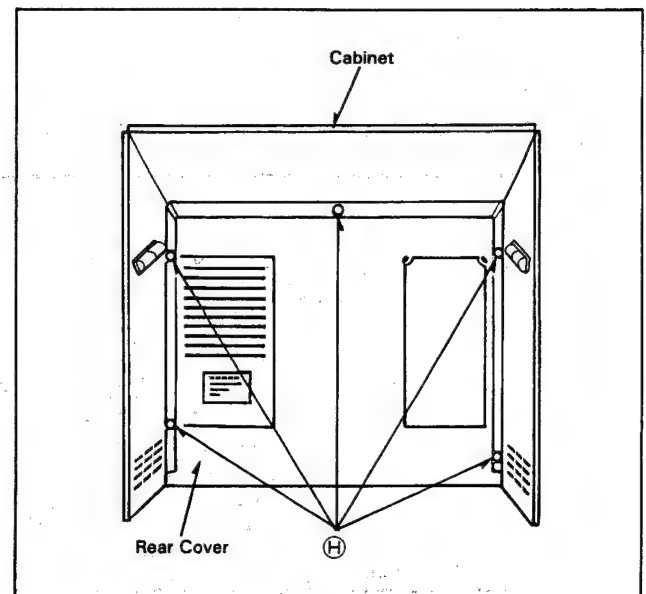


Fig. 13

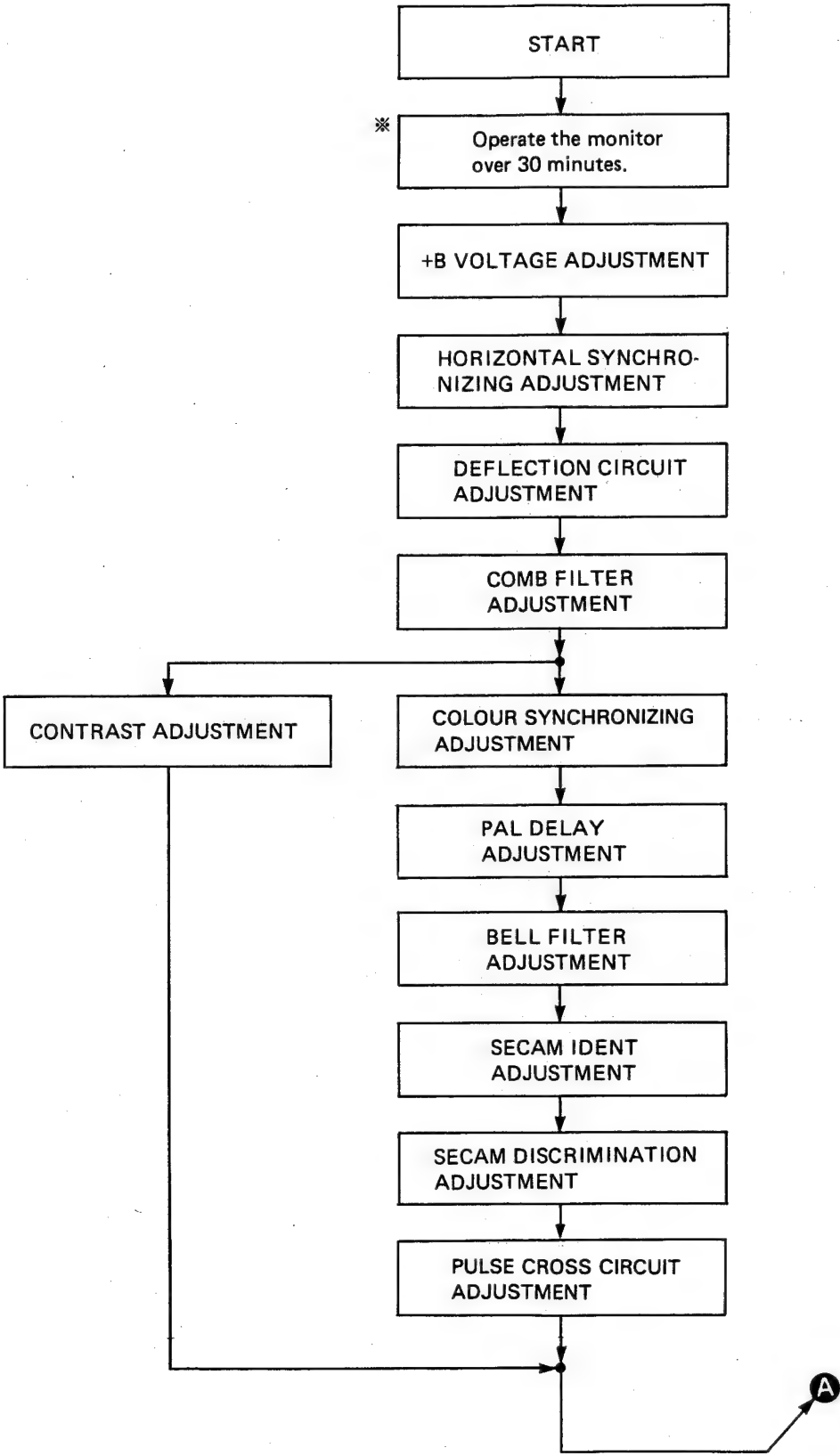
Measurements and Adjustments

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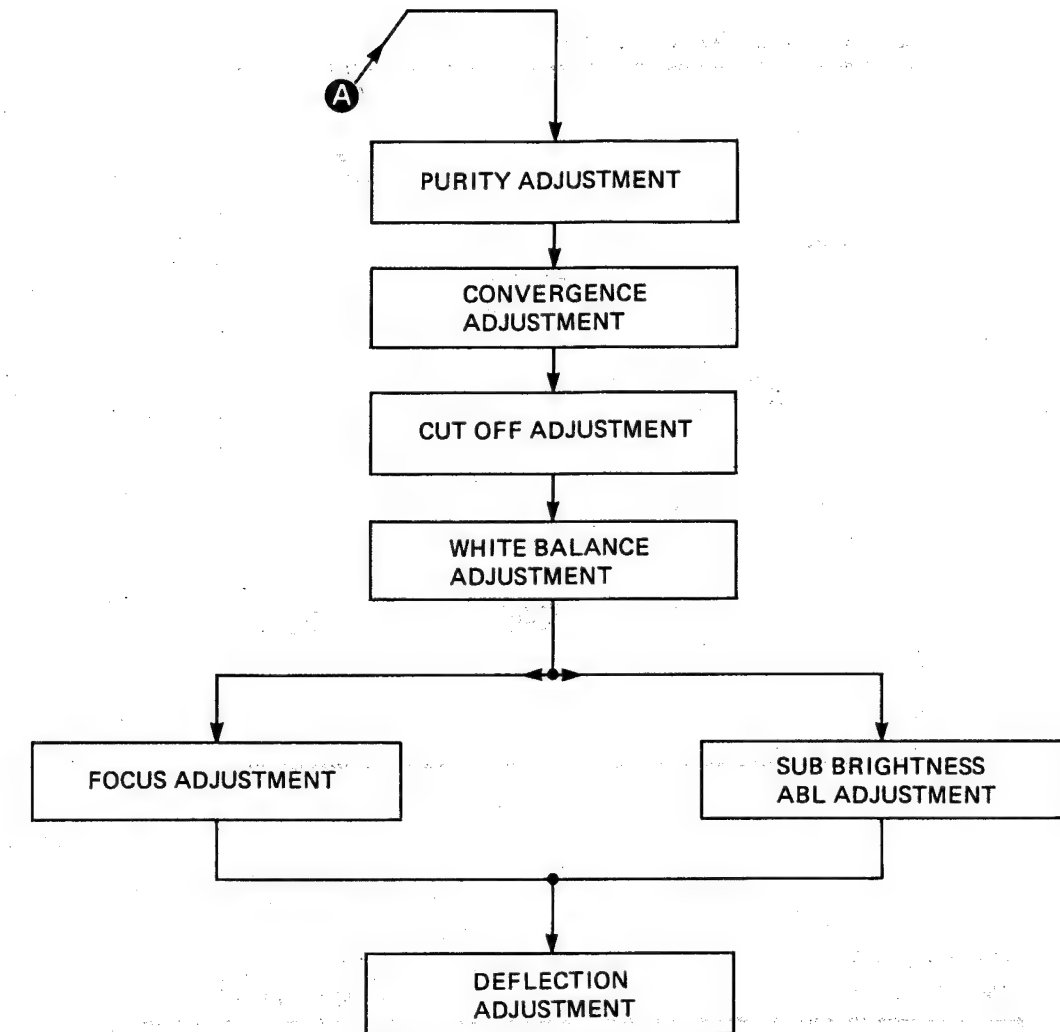
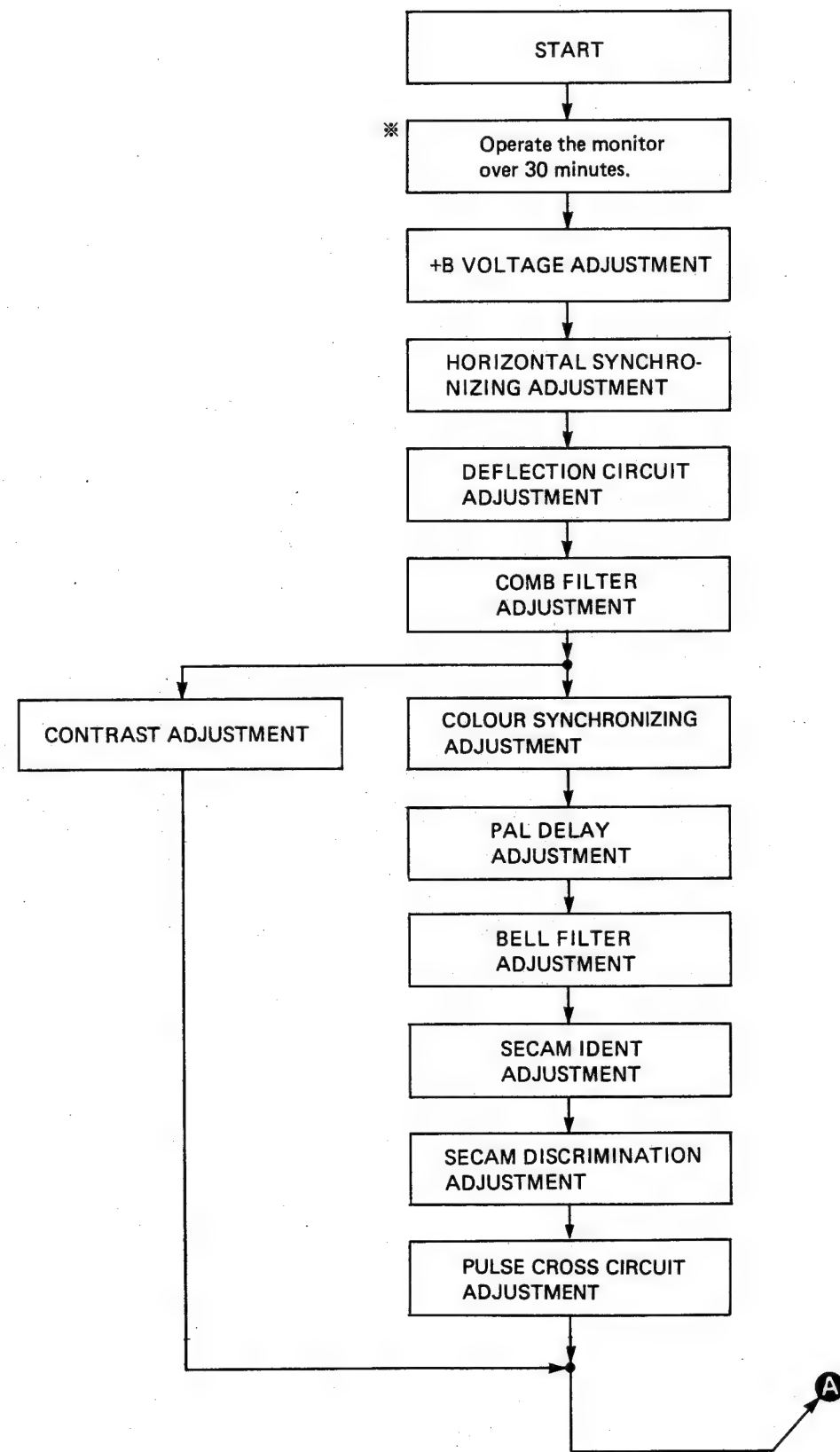
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※ NOTE: Before measuring and adjusting, operate the monitor over 30 minutes.

ADJUSTMENT PROCEDURE FLOWCHART



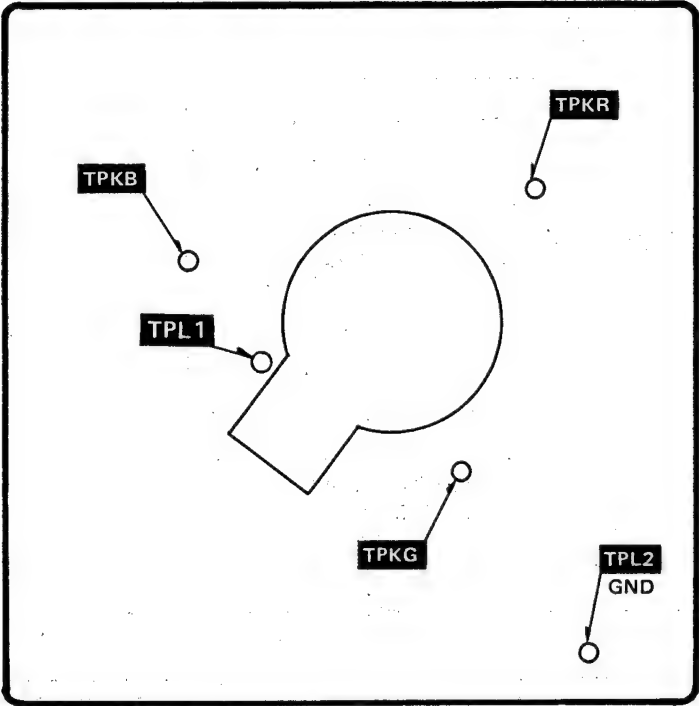
ADJUSTMENT PROCEDURE FLOWCHART



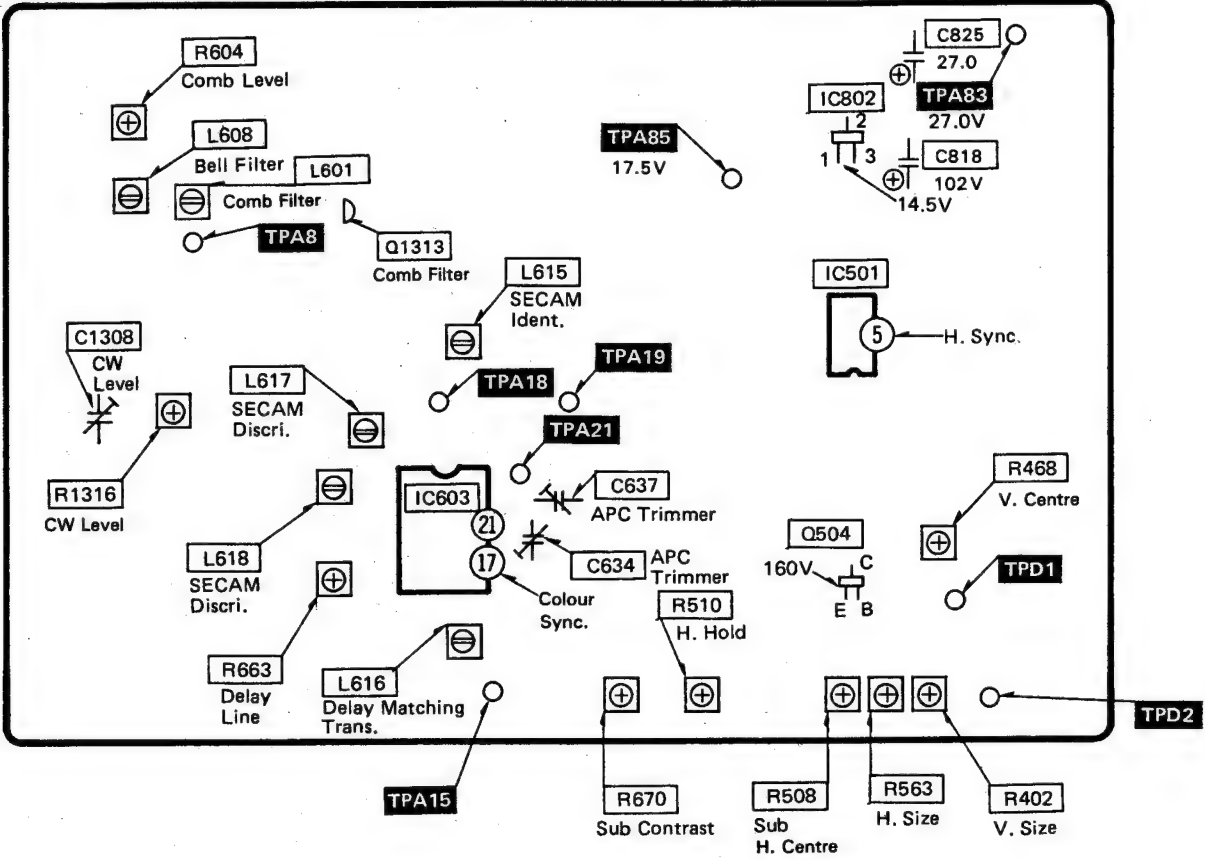
LOCATION OF TEST POINTS AND CONTROLS

Note: When measuring and adjusting, it is convenient to use these pages.

L-P.W. board TNP101903AB

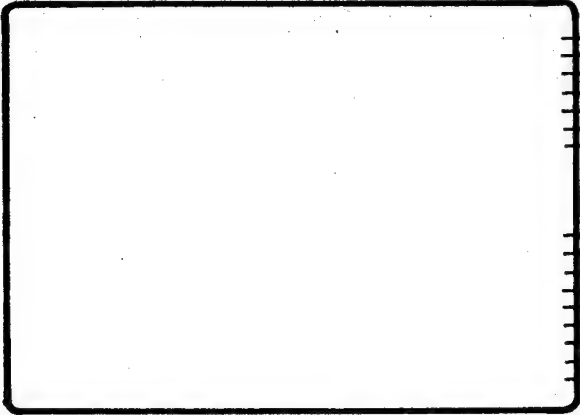


A-P.W. board TNP190103BZ

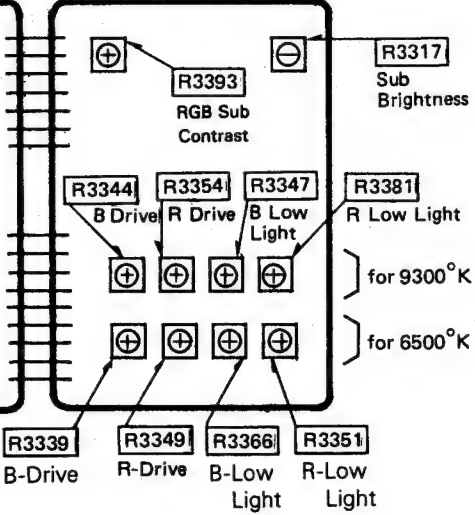


B-P.W. board

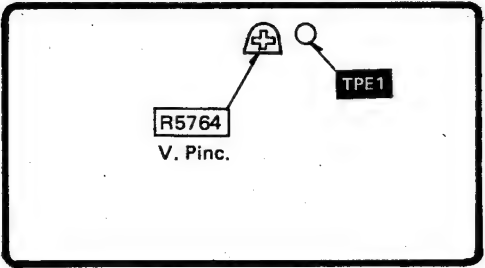
D-P.W. board
TNP101901BZ



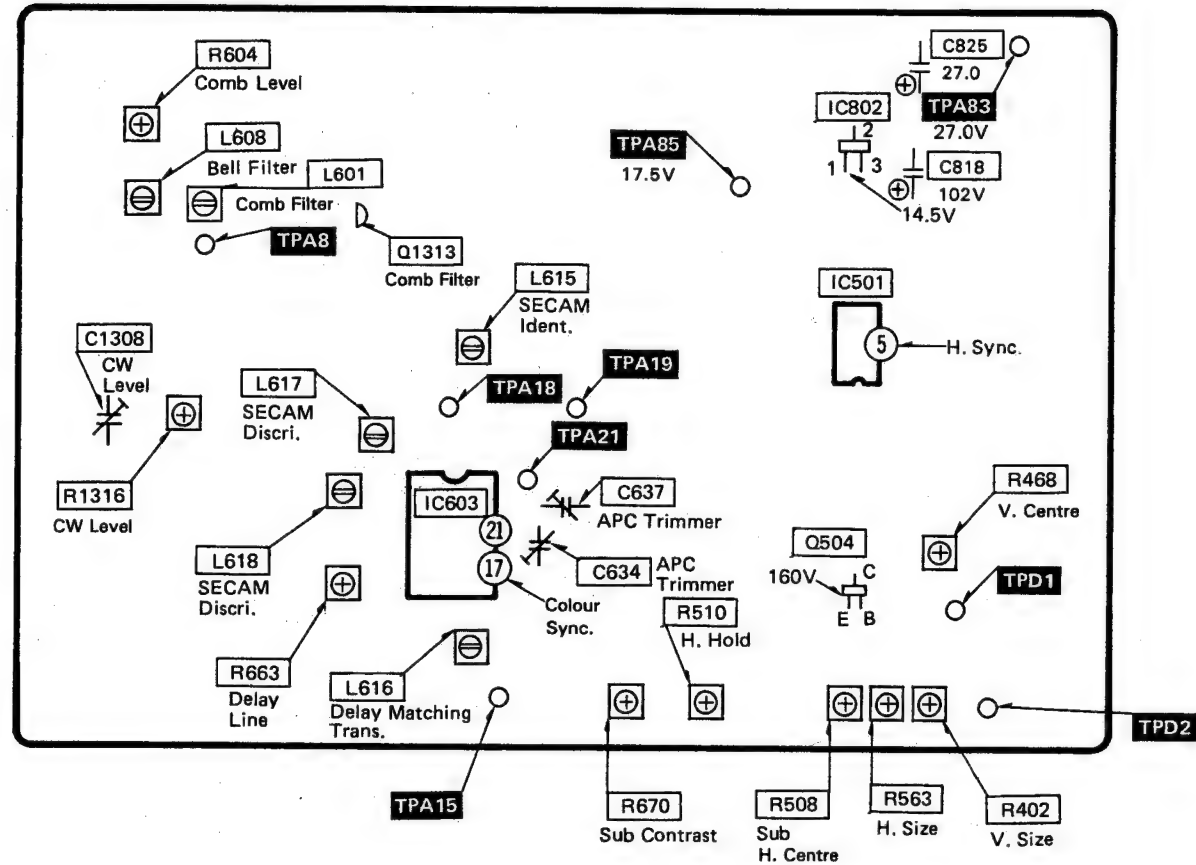
TNP101902BZ



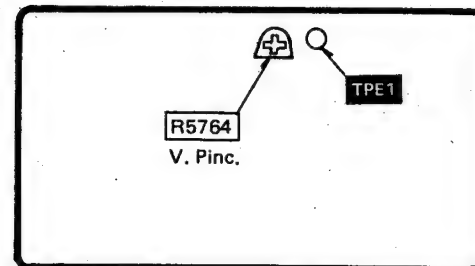
E-P.W. board TNP110314



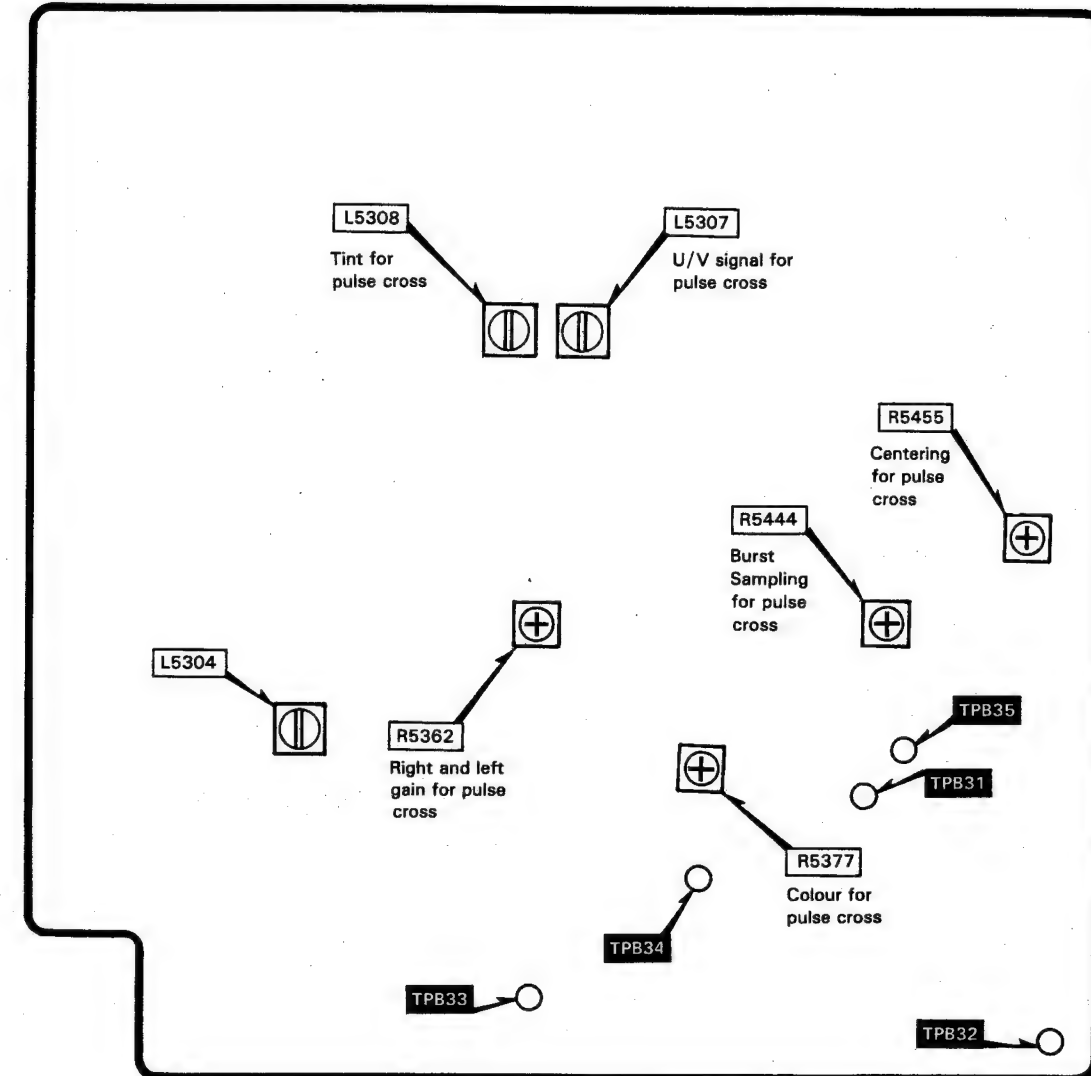
A-P.W. board TNP190103BZ



E-P.W. board TNP110314



B-P.W. board TNP110534



CAUTION FOR SERVICING

This model has the HOT and COLD section with the power supply section. Therefore following precautions are necessary.

1. Do not touch the HOT section and the COLD section at the same time. You may receive an electric shock.

Unless otherwise noted, a transformer core with has two tuning peak points should be adjusted at the lower position as shown in below Fig. 1.

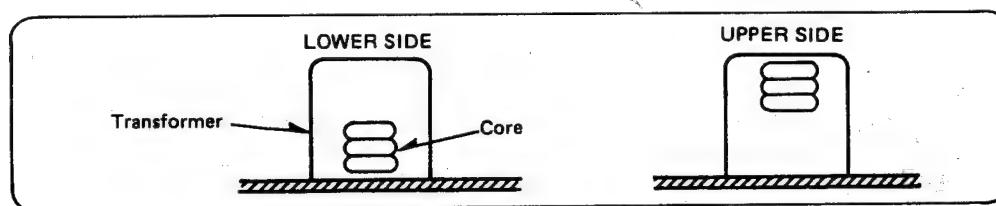


Fig. 1

For each adjustment, when a connector or a short jumper is connected or disconnected, first set the power switch to the OFF position.

+B VOLTAGE ADJUSTMENT (A-P.W. board)

1. EQUIPMENT TO USED

Digital Voltmeter

Tuner Unit.

2. ADJUSTMENT PROCEDURE

1. Input a Black Level pattern to VIDEO input terminal.
2. Set the Brightness and Contrast control to minimum, and delete the raster.
3. Connect a Digital Voltmeter between each +B points and the earth as follows.

4. Confirm that the indicated measurement points for the specified voltage.

Measurement Point		Voltage
+B2 (C818 ⊕)	H. Sync. Plate (earth)	102V±2.0V
+B1 (Q504 ⊕)		160V±10V
+B3 (C825 ⊕)		27.0V±2.0V
+B4 (TPA85 ⊕)		17.5V±2.0V
+B5 (IC802 ⊕)		14.5V±1.0V
+B6 (IC802 ⊕)		12.0V±0.5V

HORIZONTAL SYNCHRONIZING ADJUSTMENT (A-P.W. board)

1. EQUIPMENT TO USED

Short Jumper

2. ADJUSTMENT PROCEDURE

1. Input a Monoscope pattern to VIDEO input terminal.

2. Connect a short jumper between IC501 ⑤ and 12V line.
3. Adjust R510 (H. Hold) so that the Picture stabilizes.

DEFLECTION CIRCUIT ADJUSTMENT (A/D-P.W. Board)

1. EQUIPMENT TO USED

- High Voltmeter
- DC Current Meter
- AC-RMS voltmeter

2. ADJUSTMENT PROCEDURE

1. Input a Monoscope pattern to VIDEO input terminal.
2. Conenct a \oplus side of DC Current Meter to **TPD1** and \ominus side of DC Current Meter to **TPD2**.
3. Adjust R3317 (Sub Brightness) or R670 (Sub Contrast) so that the value of DC Current Meter is $400\mu\text{A}$.

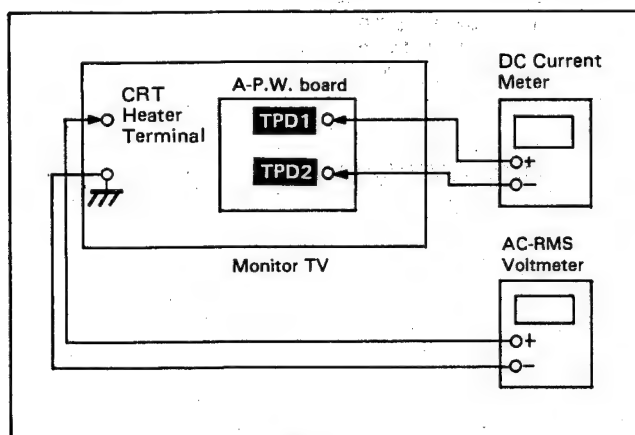


Fig. 2

4. Connect a AC-RMS voltmeter to CRT Heater terminal.
5. Confirm that the value is $6.15 \pm 0.24\text{Vrms}$.
6. Input a Black Level pattern to VIDEO input terminal.
7. Set the R3317 (Sub Brightness) and R670 (Sub Contrast) to minimum, and delete the raster.
8. Connect a High Voltmeter to anode of CRT.

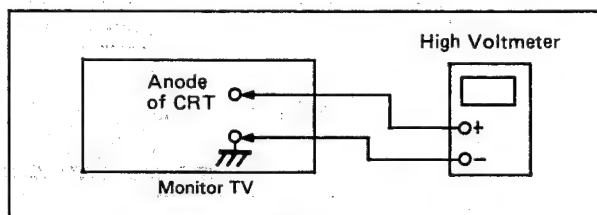


Fig. 3

9. Confirm that the value is $24.0 \pm 1\text{kV}$.

COMB FILTER ADJUSTMENT (A-P.W. Board)

1. EQUIPMENT TO USED

- Oscilloscope
- Video Generator

2. INITIALIZE CONDITION

- Input Selector Switches..... LINE A
- TV System Selector Switch..... NTSC 3.58
- Felter Selector Switch..... OFF

3. ADJUSTMENT PROCEDURE

1. Input a Colour Bar signal to VIDEO input terminal.
2. Connect an Oscilloscope to **TPA8**.

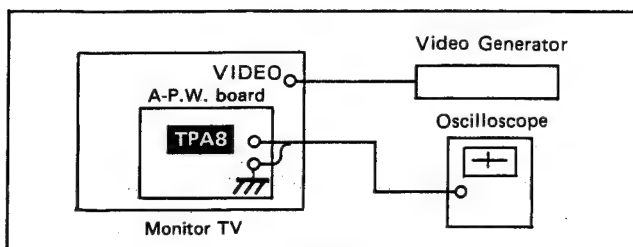


Fig. 4

3. Adjust R604 (Comb Level) and L601 to set 3.58MHz sub carrier at the minimum amplitude.
4. Confirm that 3.58 MHz sub carrier portion of the magenta is less than 50mVp-p as shown in Fig. 5.

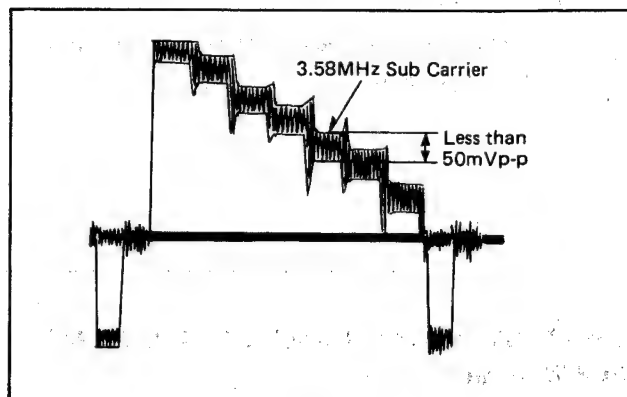


Fig. 5

5. If the amplitude is more than 50mVp-p repeat the adjustments described in step 3 through 4.

6. Disconnect an oscilloscope from **TPA8** and connect an oscilloscope to emitter of Q1313.

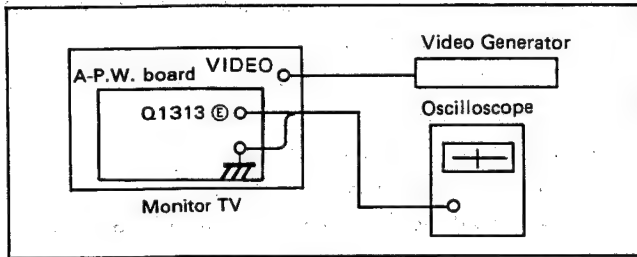


Fig. 6

7. Adjust R1316 (CW Level) and C1308 to set 3.58 MHz sub carrier at the minimum amplitude.
8. Confirm that 3.58 MHz sub carrier portion of the magenta is less than 100mVp-p as shown in Fig. 7.

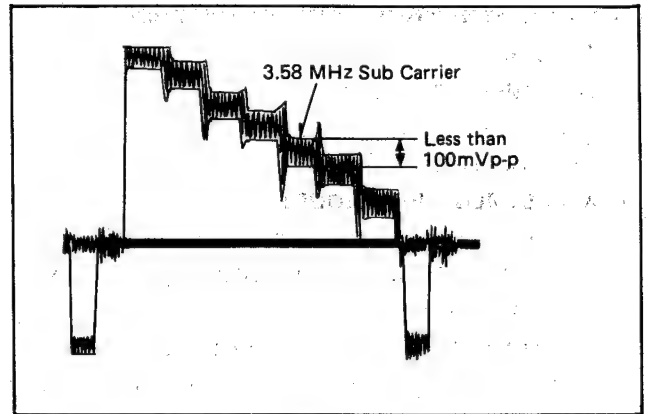


Fig. 7

9. If the amplitude is more than 100mVp-p repeat the adjustments described in step 7 through 8.

CONTRAST ADJUSTMENT (A/D/L-P.W. board)

1. EQUIPMENT TO USED

Oscilloscope
Video Generator
RGB Signal Generator

2. INITIALIZE CONDITION

Contrast Control Max.
RGB Contrast Control..... Max.
Brightness Control Center

3. ADJUSTMENT PROCEDURE

1. Set the Input Selector Switches to LINE A.
2. Input a Cross Hatch pattern signal to VIDEO input terminal.
3. Connect an Oscilloscope to emitter of Q1313.

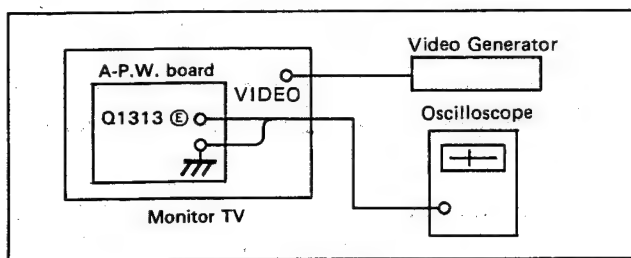


Fig. 8

4. Confirm that the A is 0V at emitter of Q1313.

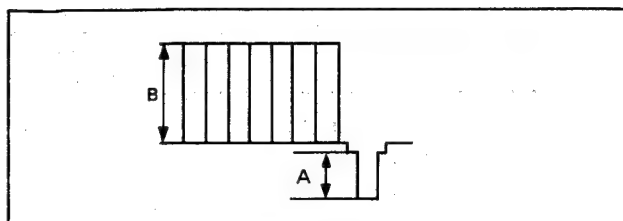


Fig. 9

5. Disconnect an Oscilloscope from emitter of Q1313 and connect an Oscilloscope to **TPKG** and **TPL2**.

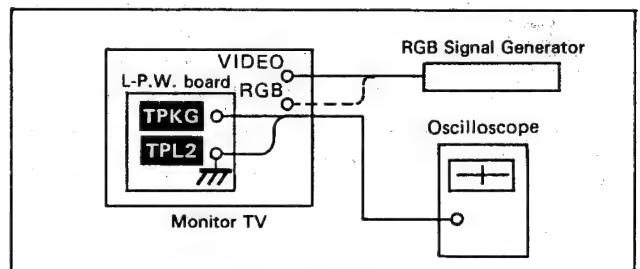


Fig. 10

6. Adjust R670 (Sub Contrast) so that the C is 55Vp-p at **TPKG** as shown in Fig. 11.

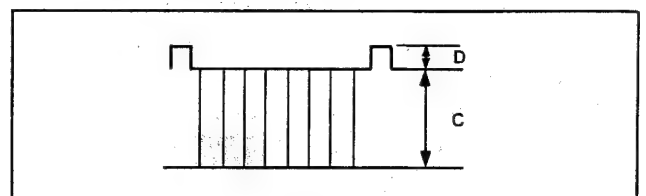


Fig. 11

7. Set the Input Selector switches to RGB.
8. Input a Cross Hatch pattern signal ($f_H = 15.75 \text{ kHz}$) to RGB inputs terminal.
9. Adjust R3393 (RGB Sub Contrast) so that the C is 55Vp-p at **TPKG** as shown in Fig. 11.

Note: Be sure to D is $30 \pm 10 \text{ Vp-p}$.

If the D is not $30 \pm 10 \text{ Vp-p}$, adjust R3317 (Sub Brightness).

10. Set the picture to first lightup colour (glimmer) by R3317 (Sub Brightness).

COLOUR SYNCHRONIZING ADJUSTMENT (A-P.W. board)

1. EQUIPMENT TO USED

Oscilloscope Short Jumper
Video Generator

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Input a PAL Colour Bar pattern signal to LINE A VIDEO input terminal.
3. Set the TV System Selector switch to PAL.
4. Connect a short jumper between IC603 ⑰ and earth.
5. Connect an Oscilloscope to **TPA19**.

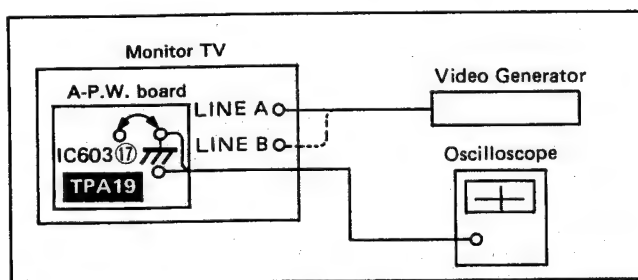


Fig. 12

6. Adjust C637 (APC Trimmer) so that the waveform is stabilized, or in a slowly moving state.
7. Disconnect a short jumper, and confirm that the waveform is stable.
8. Input a NTSC Colour Bar pattern signal to LINE A VIDEO input terminal.
9. Set the TV System Selector switch to NTSC 3.58.
10. Connect a short jumper between IC603 ⑰ and earth.
11. Adjust C634 (APC Trimmer) so that the waveform is stabilized, or in a slowly moving state.
12. Disconnect the short jumper, and confirm that the waveform is stable.
13. Set the TV System Selector switch to AUTO.
14. Input a PAL Colour Bar pattern signal to LINE A and NTSC Colour Bar pattern signal to LINE B terminal.
15. Confirm that the colour is put on without delay when the signal is switched over from LINE A to LINE B.

PAL DELAY LINE ADJUSTMENT (A-P.W. board)

1. EQUIPMENT TO USED

Oscilloscope
Video Generator

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Input a PAL Colour Bar pattern signal to VIDEO input terminal.
3. Set the TV System Selector switch to PAL.
4. Connect an Oscilloscope to **TPA19**.

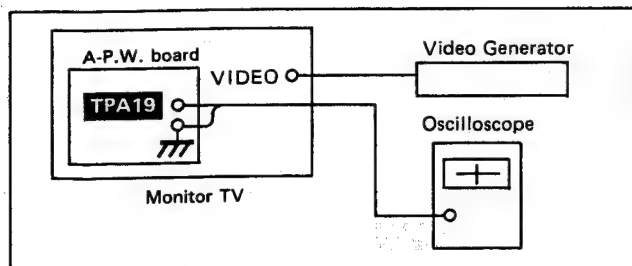


Fig. 13

5. Adjust L616 (Delay Matching Trans.) and R663 (Delay Line Adj.) to achieve waveform shown in Fig. 14.

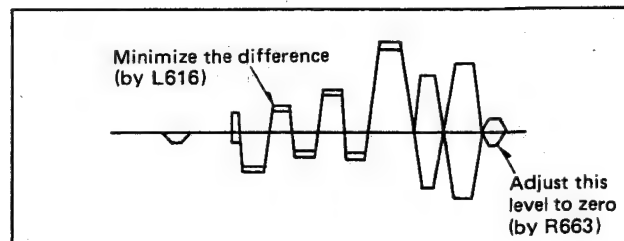


Fig. 14

BELL FILTER ADJUSTMENT (A-P.W. board)**1. EQUIPMENT TO USED**

Oscilloscope
10k Ω Resistor
Video Generator

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Set the TV System Selector switch to SECAM.
3. Input a SECAM Colour Bar pattern signal to VIDEO input terminal.
4. Connect an Oscilloscope to **TPA15** via 10k Ω resistor.

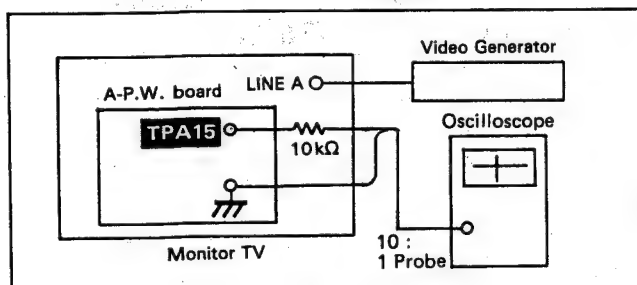


Fig. 15

5. Make even the amplitude of B and R of chrominance of colour bar by L608 (Bell Filter) as shown in Fig. 16.

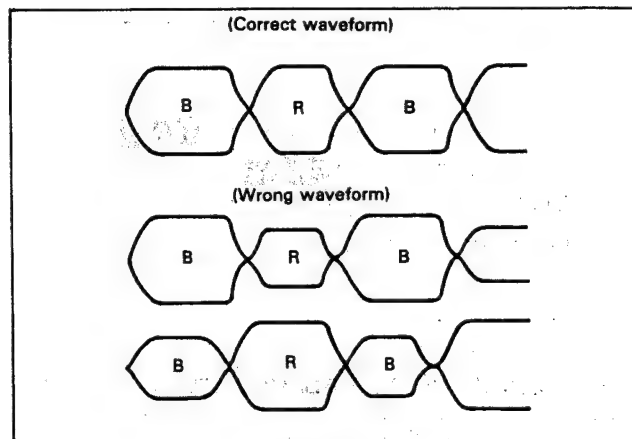


Fig. 16

SECAM IDENT ADJUSTMENT (A-P.W. board)**1. EQUIPMENT TO USED**

Oscilloscope
Video Generator
10k Ω Resistor

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Input a SECAM Colour Bar pattern signal to VIDEO input terminal.
3. Set the TV System Selector switch to SECAM.

4. Connect an Oscilloscope IC603 ② via 10k Ω resistor.

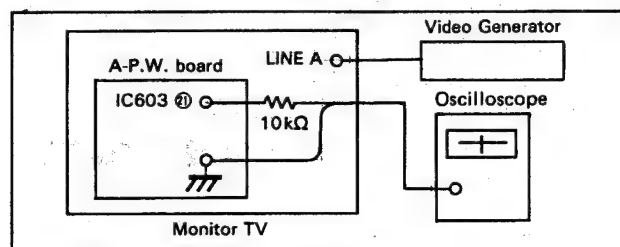


Fig. 17

5. Adjust L615 (SECAM Ident) so that the voltage is maximum.

SECAM DISCRIMINATION ADJUSTMENT (A-P.W. board)**1. EQUIPMENT TO USED**

Oscilloscope.
Video Generator

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Set the TV System Selector switch to SECAM.
3. Input a SECAM Colour Bar pattern signal to VIDEO input terminal.

4. Connect an Oscilloscope to **TPA19**.

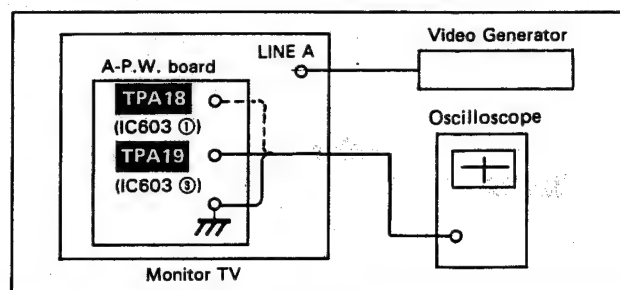


Fig. 18

5. Adjust L617 (SECAM Discrimination) so that the levels A, B and C are same level as shown in Fig. 19.

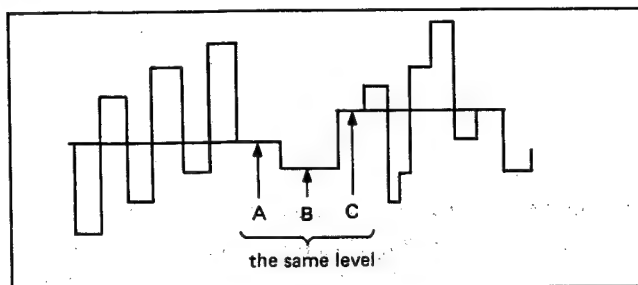


Fig. 19

6. Disconnect an Oscilloscope from **TPA19** and connect an Oscilloscope to **TPA18**.
7. Adjust L618 so that the levels D, E and F are same level as shown in Fig. 20.

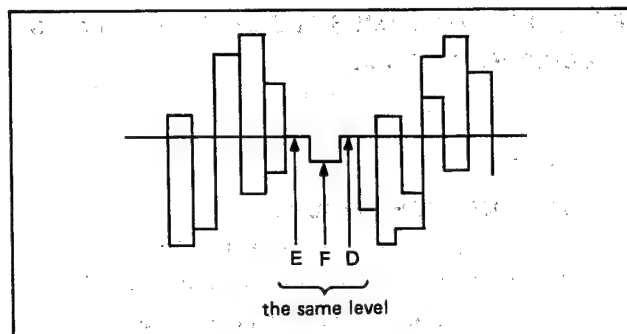


Fig. 20

8. Disconnect an Oscilloscope from **TPA18** and connect an Oscilloscope to **TPA19**.
9. Confirm that the levels A and C are same level as shown in Fig. 19.

PULSE CROSS CIRCUIT ADJUSTMENT (A/B/E-P.W. board)

1. EQUIPMENT TO USED

Oscilloscope

Video Generator (NTSC and PAL/SECAM)

2. ADJUSTMENT PROCEDURE

1. Set the Input Selector switches to LINE A.
2. Set the TV System Selector switch to NTSC.
3. Set the H/V Delay Switch ☒ to ON.
4. Input a Red Signal to LINE A terminal.
5. Connect an Oscilloscope to **TPE1** and **TPA15**.

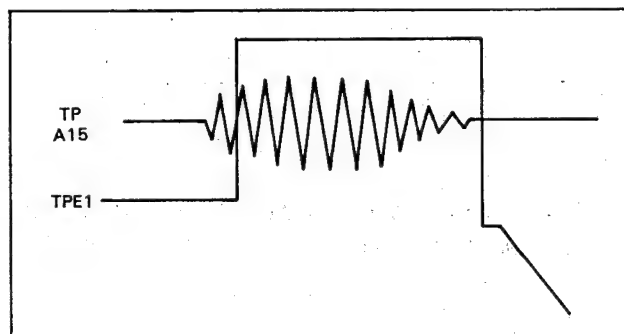


Fig. 22

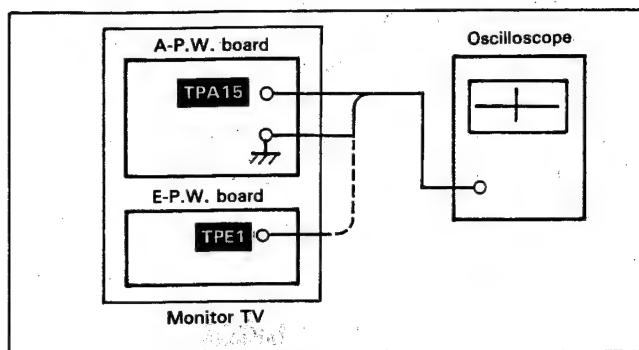



Fig. 21

6. Adjust R5444 (Burst sampling for pulse cross) so that the false burst for **TPA15** enter within clamp pulse of **TPE1** as shown in Fig. 22.

7. Set the H/V Delay Switch  to OFF.
8. Input a SMPTE signal to LINE A terminal.
9. Set the Blue Signal Only Switch to ON.
10. Adjust Chroma Control so that the Contrast for ① and ②, and for ③ and ④ is the same as shown in Fig. 25.

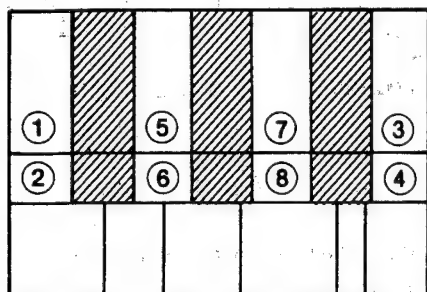



Fig. 25

11. Adjust Phase Control so that the Contrast for ⑤ and ⑥, and for ⑦ and ⑧ is the same as shown in Fig. 25.

Note: After adjusted Chroma and Phase controls on step 12 and 13, don't turn Chroma and Phase controls step 17 completed.

12. Set the H/V Delay Switch  to ON.

Note: When ①, ② and ③, ④ disappear by overscan, press the Under Scan Switch . Move the picture up and down by R5455 (Centering for pulse cross).

13. Adjust L5308 (Tint for pulse cross) so that the Contrast for ① and ② is the same as shown in Fig. 26.

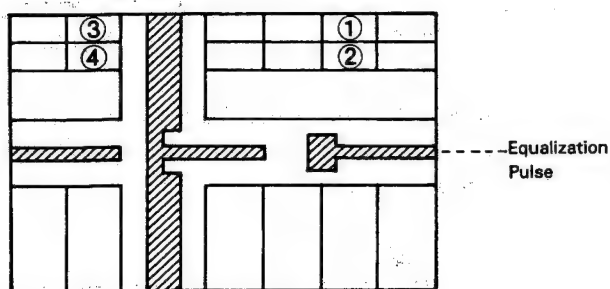




Fig. 26

14. Adjust R5377 (Colour for pulse cross) so that the Contrast for ③ and ④ is the same as shown in Fig. 26.
15. Switching the H/V Delay Switch  to ON/OFF, confirm the adjustment for step 12 and 13 is right.
16. Set the H/V Delay switch  to OFF.
17. Set the Input Selector switches to LINE B.
18. Set the TV System Selector switch to PAL.
19. Set the Blue Signal Only Switch to OFF.
20. Input a PAL Colour Bar Signal to LINE B terminal.
21. Memory the this level for ③ and ④ (about colourless) as shown in Fig. 27.

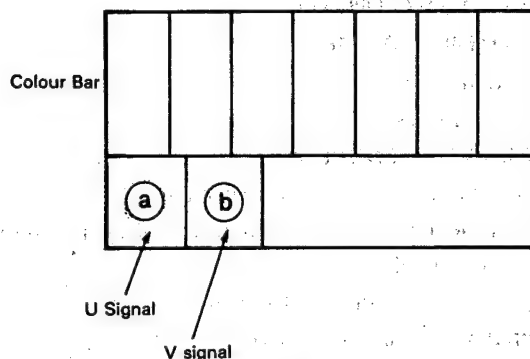


Fig. 27

22. Set the H/V Delay Switch  to ON.

23. Turn L5307 (U/V signal for pulse cross) so that the level for ③ and ④ is the same to level for ① and ② (about colourless) as shown in Fig. 27 and 28.

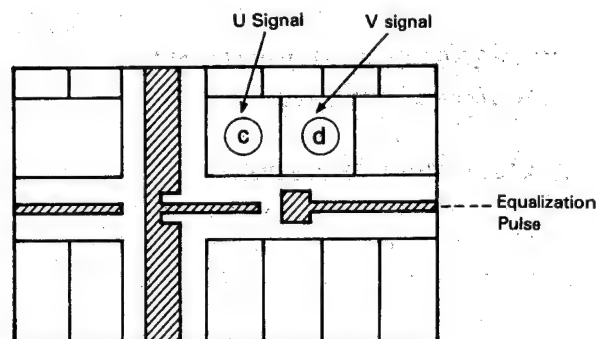


Fig. 28

24. Input a PAL signal (any pattern) to LINE B terminal.
25. Set the H/V Delay Switch to ON.
26. Adjust R5455 (Centring for pulse cross) so that the equalization pulse is centre to vertical direction.
27. Input a PAL, SECAM, NTSC colour bars.
28. Confirm the normal and H/V Delay pictures monitor rightly.

PURITY ADJUSTMENT

1. EQUIPMENT TO USED

Video Generator
External Degaussing Coil

2. ADJUSTMENT PROCEDURE

1. Operate the monitor over 30 minutes.
2. Fully degauss the picture tube by using an external degaussing coil.
3. Set the Input Selector Switches to LINE A.
4. Input a video signal to VIDEO input terminal.
5. Adjust roughly convergence by using the static and convergence magnets and deflection yoke.
6. Input a black and white signal to VIDEO input terminal.
7. Loosen clamp screw of the deflection yoke.
8. Slide the deflection yoke toward the picture tube.
9. Adjust the purity magnets so that red circle is obtained at the centre of the picture.

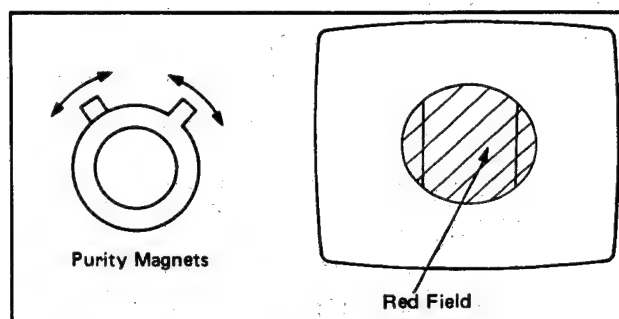


Fig. 29

10. Slide the deflection yoke toward you so that good purity is obtained.
11. Confirm the purity with a green and a blue screen.
12. Emit the Red, Green and Blue at the same time.
13. Confirm the white quality.
14. Tighten clamp screw when complete.

CONVERGENCE ADJUSTMENT

1. EQUIPMENT TO USED

Video Generator.

2. ADJUSTMENT PROCEDURE

1. Operate the monitor 30 minutes.
2. Set the Input Selector Switches to LINE.
3. Input a Cross Hatch pattern signal to VIDEO input terminal.
4. Match the R and B at picture center with four pole magnet.
(Rotate the two ring magnets to move the red and blue dots Circularly in the opposite direction).
5. At the picture centre, match R and B to G with the six-pole magnet.

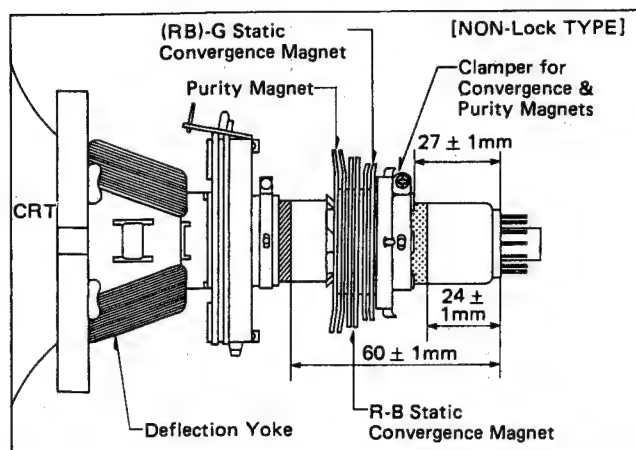


Fig. 30

6. Tilt the DY up and down, match the R and B for H line of centre. (Fig. 31)
7. Tilt the DY left and right, match the R and B for H line of up and down side and V line of left and right side. (Fig. 32)

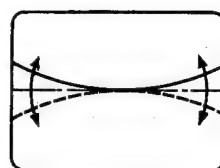


Fig. 31

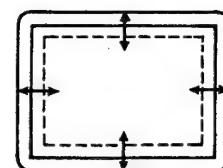


Fig. 32

8. Adjust R, B skew control (Black control on DY) so that the unmatched for left and right of R, B of centre V line is symmetry. (Fig. 33)

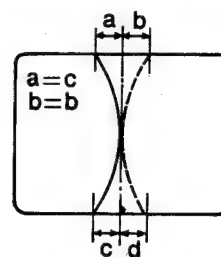


Fig. 33

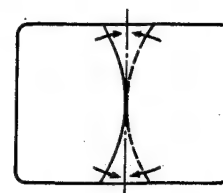


Fig. 34

9. Match the R, B of centre V line by R, B Bow control (white control on DY). (Fig. 34)
10. When unmatched, repeat step 7 and 8.
11. When the periphery convergence is bad, fix the good point for convergence by inserting permalloy.

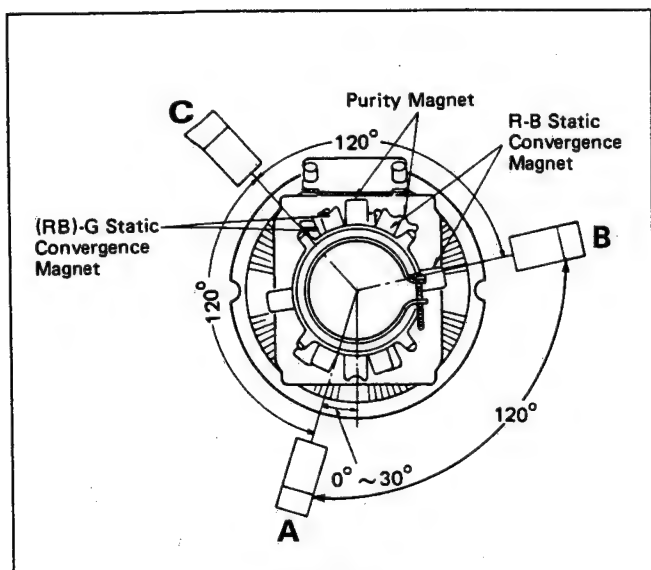


Fig. 35

Notes:

1. Wedge A shown in Fig.35 should be fixed within a range of $0^\circ \sim 30^\circ$ to the left of the vertical line as shown.
2. After inserting wedge A, insert wedges B and C. The wedges should be set 120° apart from each other.
3. Be certain that the four wedges are firmly fixed and the Deflection Yoke is tightly clamped in place. Otherwise the Deflection Yoke may shift its position and cause a loss of convergence and purity.

CUT OFF ADJUSTMENT (L-P.W. board)**1. EQUIPMENT TO USED**

Oscilloscope
Video Generator

2. INITIALIZE CONDITION (D-P.C. board)

R3349 (R Drive) Centre
R3351 (R Cut OFF) Centre
R3366 (B Drive) Centre
R3339 (B Cut OFF) Centre
Colour Temp. Selector 9300° K

3. ADJUSTMENT PROCEDURE

1. Set the input selector switches to LINE A.
2. Set the TV System selector switch to NTSC 3.58.
3. Input a Cross Hatch pattern signal to VIDEO input terminal.
4. Connect an Oscilloscope to **TPKG**, and earth.

5. Read the voltage (Black standard level to earth) on oscilloscope.
6. Adjust the Screen control on FBT so that the Black standard signal level is $95 \pm 5V$.

Note: Black standard signal is output from the IC for auto white balance and appears after the vertical blanking pulse. Do not adjust at black level in video signal.

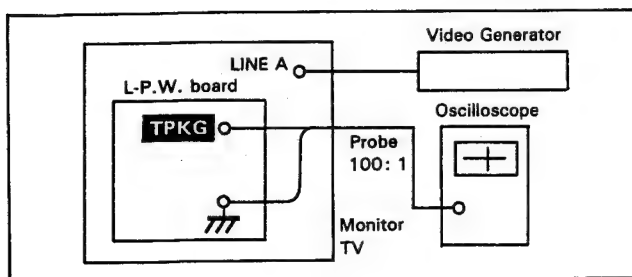


Fig. 36

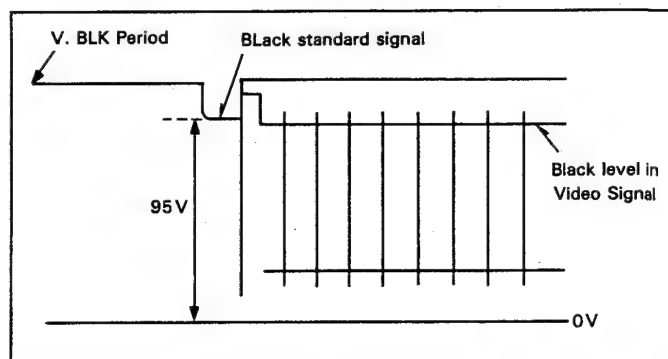


Fig. 37

WHITE BALANCE ADJUSTMENT (D-P.W. board)**1. EQUIPMENT TO USED**

Video Generator
TV-Colour Analyzer (MINOLTA)

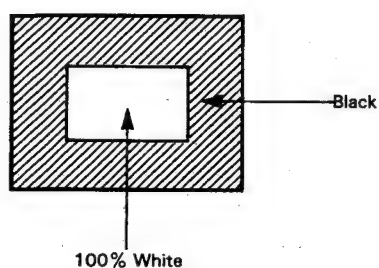
2. INITIALIZE CONDITION

Chroma Control	Centre
Phase Control	Centre
Contrast Control	Max.
Aperture Control	Centre
H. Cent. Control	Centre
Brightness Control	Centre
R3354 (R Drive)	for 9300° K
R3381 (R Low Light)	
R3344 (B Drive)	
R3347 (B Low Light)	
R3349 (R Drive)	for 6500° K
R3351 (R Low Light)	
R3339 (B Drive)	
R3366 (B Low Light)	
Colour Temp. Selector	9300° K

3. ADJUSTMENT PROCEDURE

1. Operate the monitor over 30 minutes.
2. Apply a window pattern signal.

3. Secure the light receiving part of a TV-colour analyzer (MINOLTA) at the screen centre.
4. Adjust the brightness and sub brightness controls to the low light screen.
5. Adjust R3381 (R Low Light), R3347 (B Low Light) for low light of 9300K.
6. Adjust the brightness and sub brightness controls to the high light screen.
7. Adjust R3354 (R Drive), R3344 (B Drive) for high light of 9300K.
8. Since the adjustment of steps 4 through 7 have mutual influence, be sure to repeat the followup adjustment.
9. Set the colour temp. switch to 6500K.
10. Adjust the brightness and sub brightness controls to the low light screen.
11. Adjust R3351 (R Low Light), R3366 (B Low Light) for low light of 6500K.
12. Adjust the brightness and sub brightness controls to the high light screen.
13. Adjust R3349 (R Drive), R3339 (B Drive) for high light of 6500K.
14. Repeat steps 10 through 13, and finish at low light adjustment.
15. Finish at adjustment of 6500K surely.

**Fig. 38**

SUB BRIGHTNESS ABL ADJUSTMENT (A/D-P.W. Board)

1. EQUIPMENT TO USED

Video Generator
DC Current Meter

2. INITIALIZE CONDITION

Contrast ControlMax.
RGB Contrast ControlMax.
Brightness ControlCentre

3. ADJUSTMENT PROCEDURE

1. Operate the monitor over 30 minutes.
2. Set the Input Selector Switches to LINE A.

3. Input SMPTE or cross hatch pattern signal to VIDEO input terminal.
4. Set the black level of the picture to first lightup colour (glimmer) by R3317 (Sub Brightness).

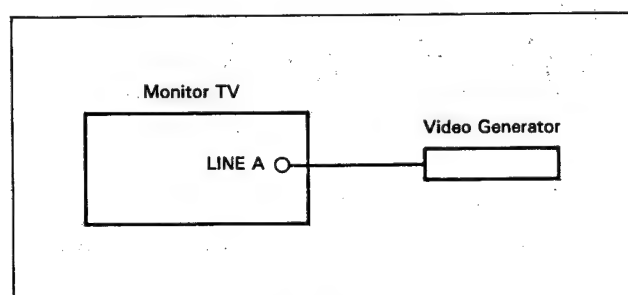


Fig. 39

FOCUS ADJUSTMENT

Adjust the focus control (on the FBT) to obtain the sharpest and clearest picture.

DEFLECTION ADJUSTMENT (A/E-P.W. board)

1. Set the Input Selector Switches to LINE B.
2. Set the TV System Selector switch to PAL.
3. Set the Underscan Switch to OFF.
4. Adjust R5764 (V. PINC.) so that the vertical line is straight.
5. Input a PAL signal (any pattern) to LINE B input terminal.
6. Adjust R468 (V. Center) so that the vertical picture position is centre.
7. Adjust horizontal width by R563 (H. Size) so that the $A = B = 2.5 \pm 0.5$ as shown in Fig. 40.

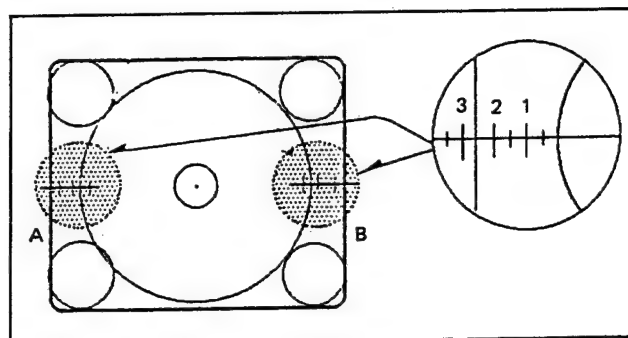


Fig. 40

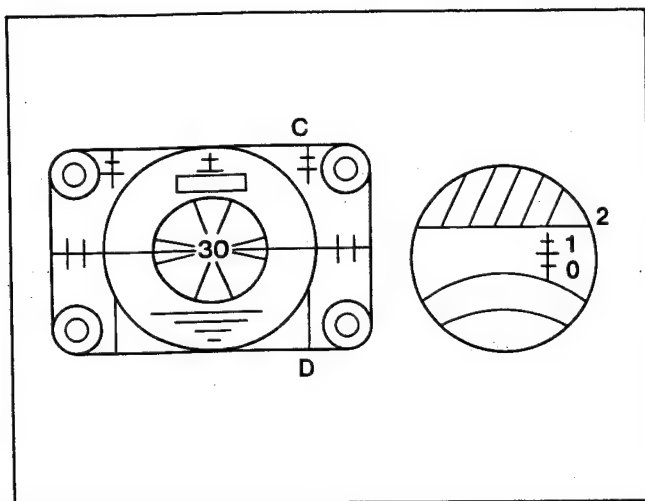
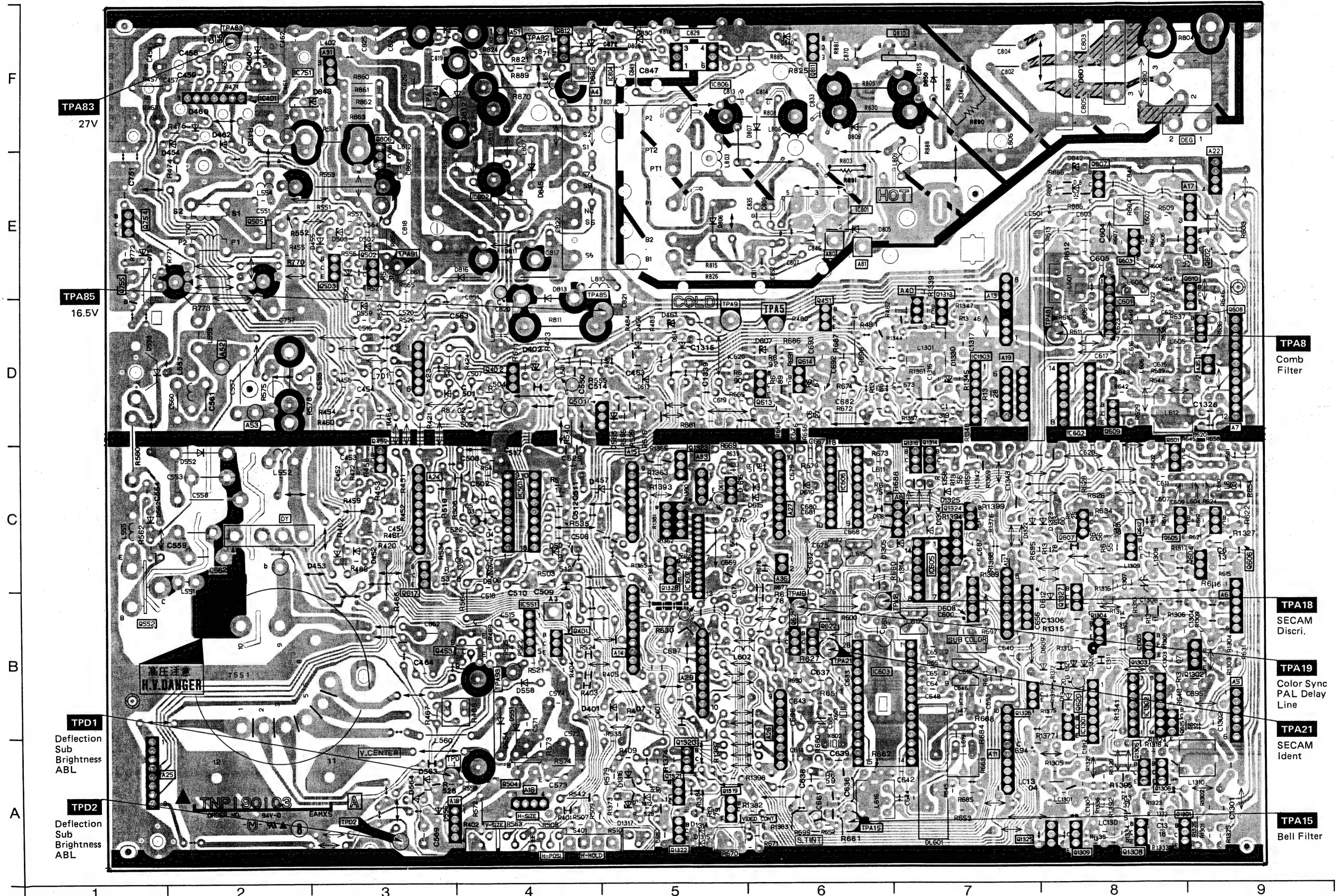


Fig. 41

8. Adjust vertical height by R402 (V. Size) so that the $C = D = 2.0 \pm 0.5$ as shown in Fig. 41.
9. Set the Underscan Switch to ON.
10. Adjust Brightness Control so that the back raster appear, and set the back raster in centre position by R508 (Sub H. Centre).
11. Set the Underscan Switch to OFF.
12. Confirm that the picture is impartial to right and left too far and the all picture is overscan.
13. Set the TV System Selector to NTSC.
14. Input a monoscope pattern signal to LINE A input terminal.
15. Set the Underscan Switch to ON, and then confirm that the all picture is underscan.

Circuit Boards

A-P.W. Board TNP190103BZ



TPA83
27V

TPA85
16.5V

TPA8
Comb
Filter

TPA18
SECAM
Discri.

TPA19
Color Sync
PAL Delay
Line

TPA21
SECAM
Ident

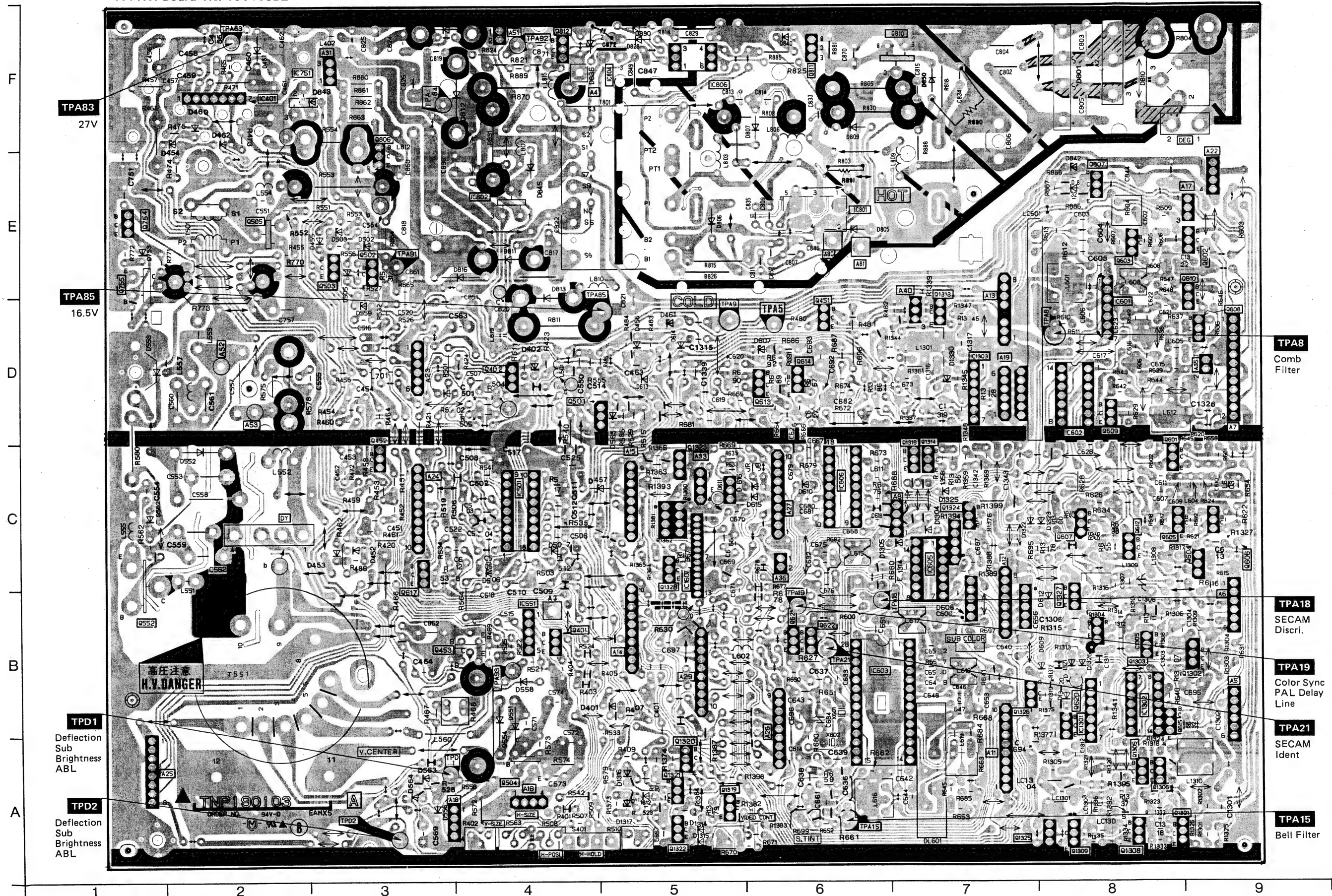
TPA15
Bell Filter

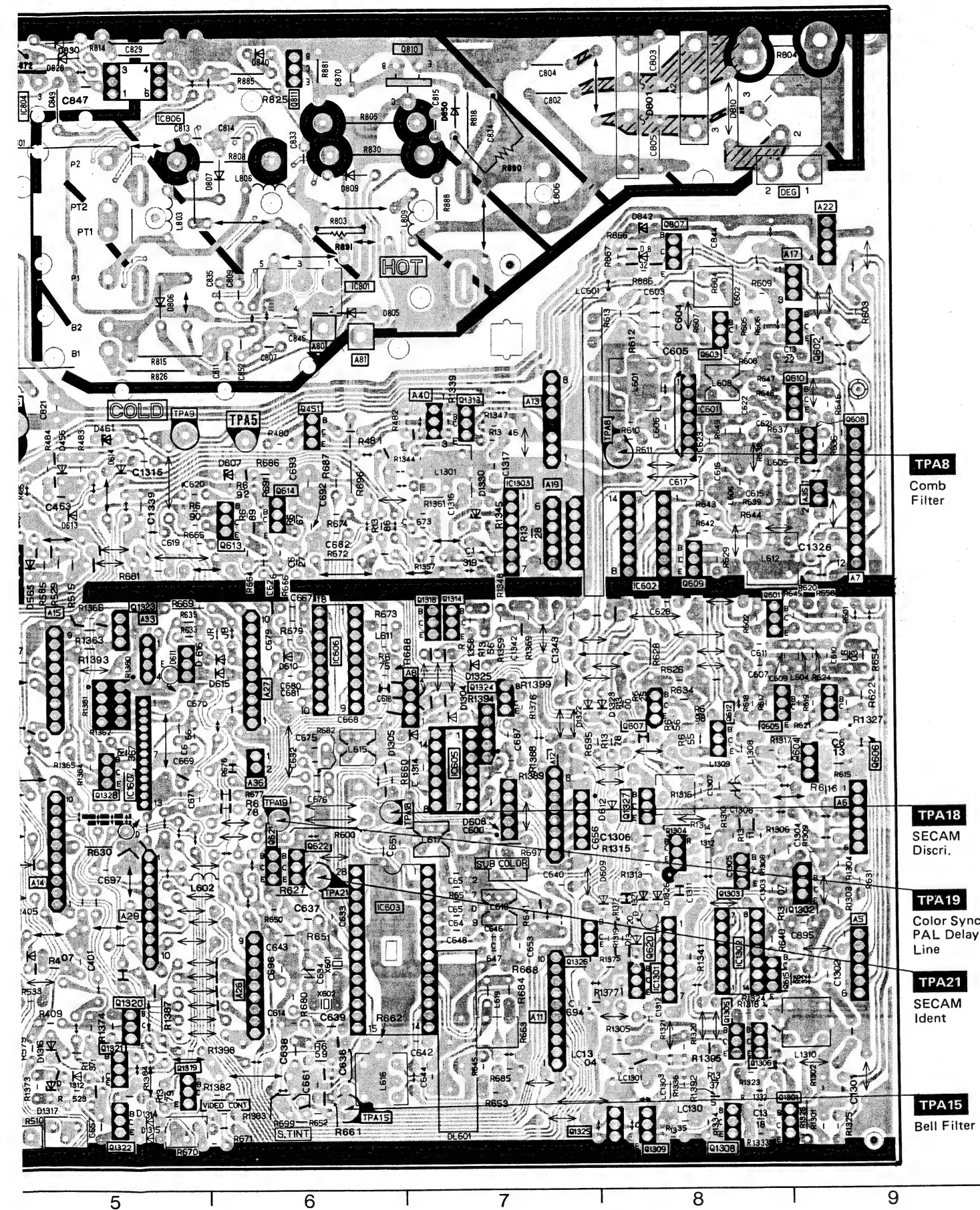
TPD1
Deflection Sub
Brightness
ABL

TPD2
Deflection Sub
Brightness
ABL

Circuit Boards

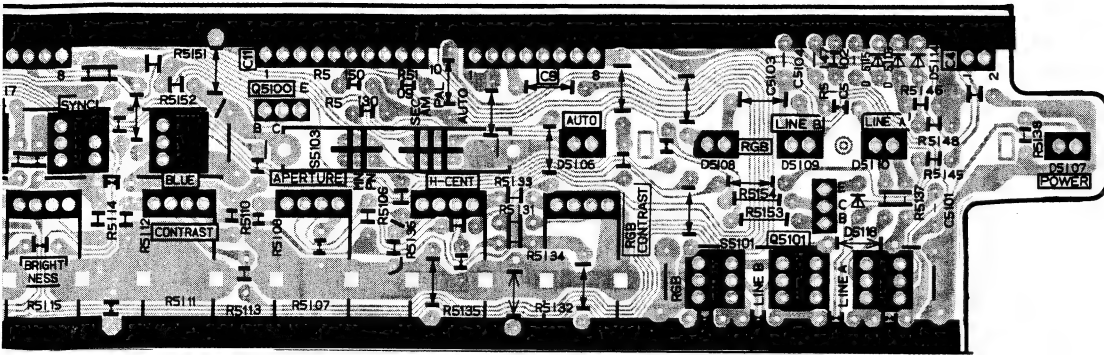
A-P.W. Board TNP190103BZ



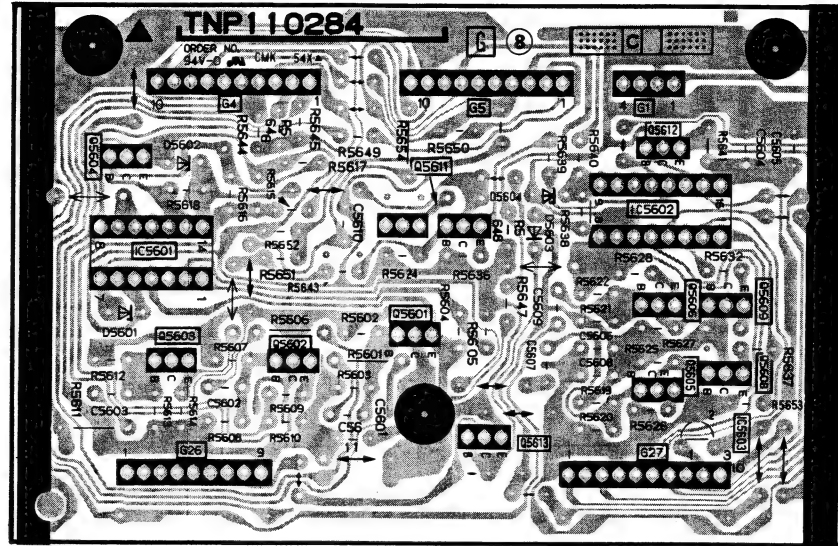


A-P.W. BOARD					
IC		Q806		F-3	
IC401	F-2	Q807	E-8		
IC501	C-4	Q810	E-6		
IC551	B-4	Q811	E-6		
IC601	D-8	Q812	F-4		
IC602	D-8	Q1301	A-8		
IC603	B-6	Q1302	B-9		
IC605	C-7	Q1303	B-8		
IC606	C-6	Q1304	B-8		
IC607	C-5	Q1305	A-8		
IC801	E-6	Q1306	A-8		
IC802	E-4	Q1308	A-8		
IC804	F-5	Q1309	A-8		
IC806	F-5	Q1313	D-7		
IC751	F-2	Q1314	C-7		
IC1301	B-8	Q1318	C-7		
IC1302	B-8	Q1319	A-5		
IC1303	D-7	Q1320	A-5		
TRANSISTOR		Q1321	A-5		
Q401	B-1	Q1322	A-5		
Q402	D-4	Q1323	C-5		
Q451	D-6	Q1324	C-7		
Q452	C-3	Q1325	A-8		
Q453	B-3	Q1326	B-7		
Q454	B-4	Q1327	B-8		
Q501	D-4	Q1328	C-5		
Q502	E-3	VR			
Q503	E-3	R402	A-4		
Q504	A-4	R468	B-4		
Q505	E-2	R508	A-4		
Q552	B-1	R510	A-5		
Q601	C-8	R563	A-4		
Q602	E-9	R604	E-8		
Q603	E-8	R663	A-7		
Q604	C-9	R670	A-5		
Q605	C-8	R697	B-7		
Q606	C-9	R699	A-6		
Q607	C-8	R1316	B-8		
Q608	D-9	TP			
Q609	D-8	TPA8	D-8		
Q610	D-9	TPA9	D-5		
Q612	C-8	TPA15	A-6		
Q613	D-6	TPA16	B-6		
Q614	D-6	TPA18	C-6		
Q615	B-8	TPA19	B-6		
Q617	C-3	TPA21	B-6		
Q620	B-8	TPA83	F-2		
Q621	B-6	TPA84	F-3		
Q622	B-6	TPA85	D-5		
Q754	E-1	TPD1	B-3		
Q755	E-1	TPD2	A-3		
Q801	F-7				
Q804	F-7				

ADDRESS INFORMATION



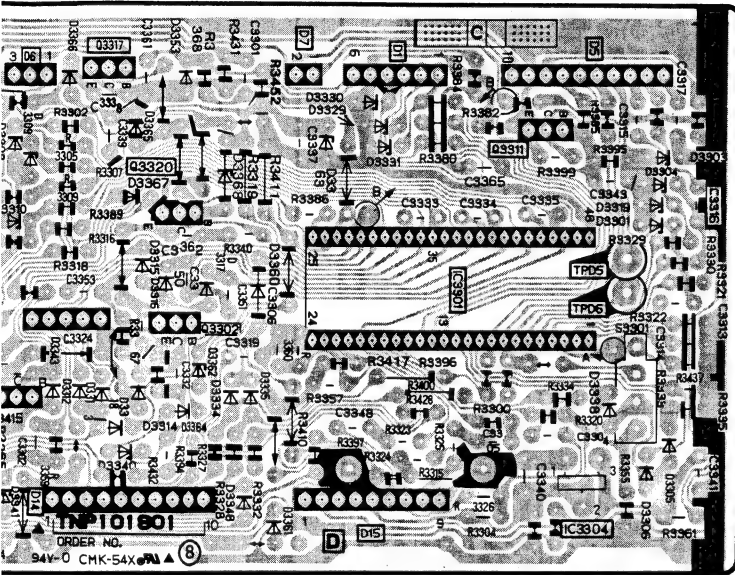
G-P.W. Board TNP110284



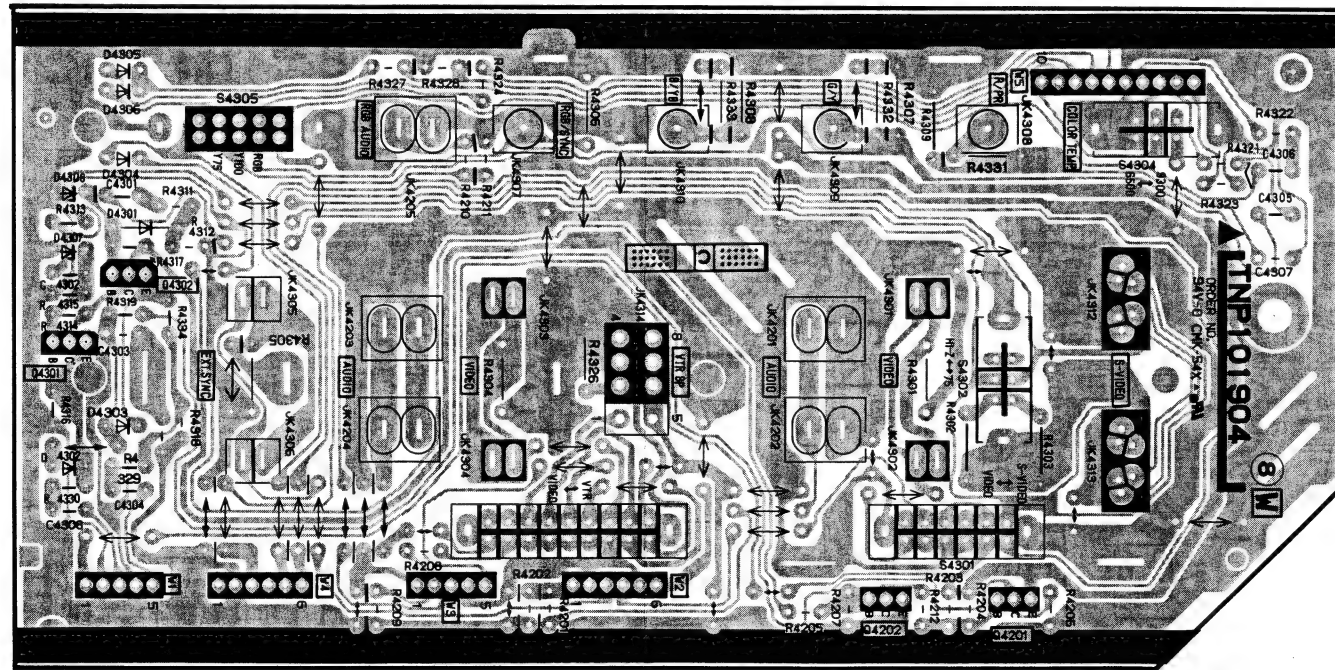
G-P.W. Board					
IC		Q5604		F-7	
IC5601	F-7	Q5605	E-9		
IC5602	F-9	Q5606	E-9		
IC5603	E-9	Q5607	F-8		
TRANSISTOR		Q5608	E-9		
Q5601	E-8	Q5609	E-9		
Q5602	E-8	Q5610	F-8		
Q5603	E-7	Q5611	F-8		
		Q5612	F-9		

ADDRESS INFORMATION

BZ



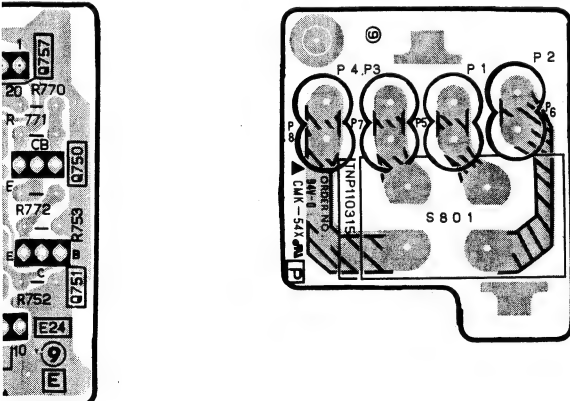
W-P.W. Board TNP101904



W-P.W. Board			
TRANSISTOR			
Q4201	B-9		
Q4202	B-8		
Q4301	B-5		
Q4302	C-6		

ADDRESS INFORMATION

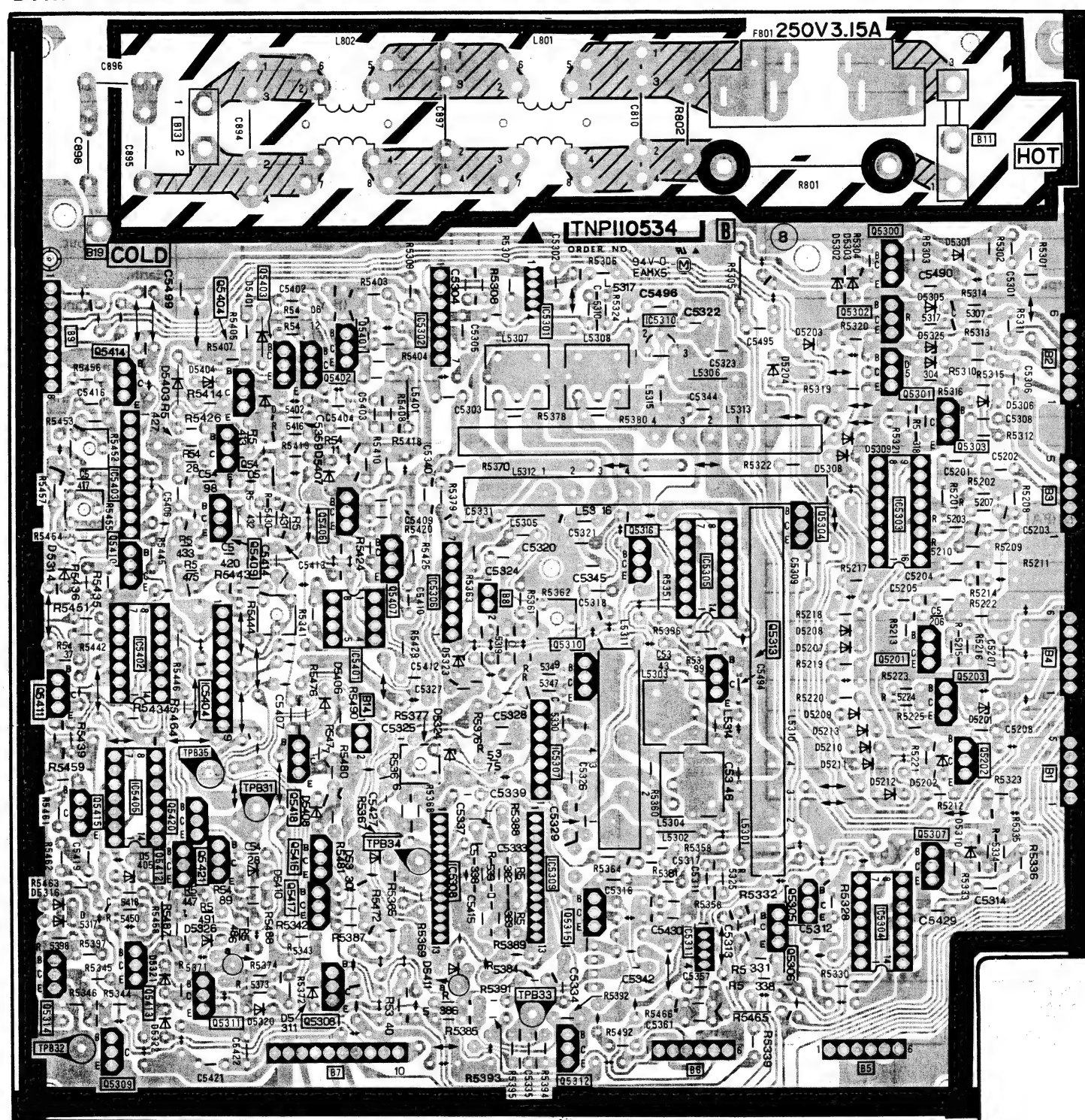
P-P.W. Board TNP110315ZB



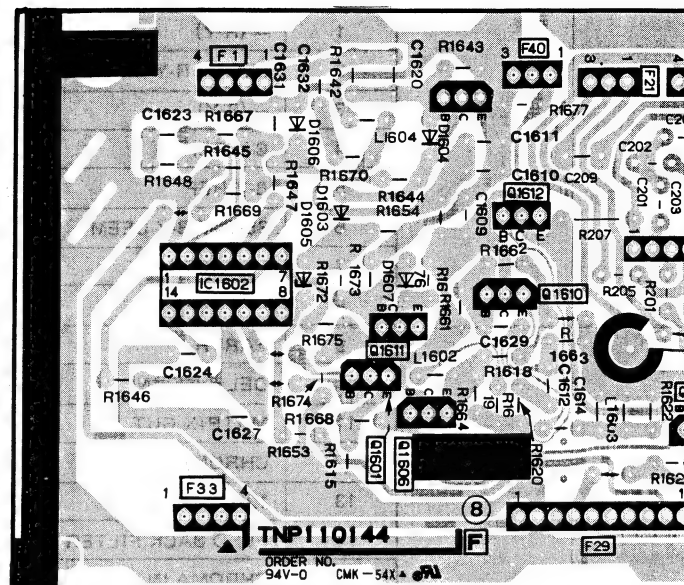
B-P.W. Board			
Transistor			
IC5301	E-3	Q5314	B-1
IC5302	E-3	Q5315	B-3
IC5303	D-5	Q5401	E-2
IC5304	B-5	Q5402	E-2
IC5305	D-4	Q5403	E-2
IC5306	D-3	Q5404	E-2
IC5307	C-3	Q5405	D-2
IC5308	B-3	Q5406	D-2
IC5309	B-3	Q5407	D-3
IC5310	E-4	Q5408	D-2
IC5311	B-4	Q5410	D-1
IC5401	C-2	Q5411	C-1
IC5402	C-1	Q5412	B-2
IC5403	D-1	Q5413	B-1
IC5404	C-2	Q5414	E-1
IC5405	C-1	Q5415	C-1
		Q5416	B-2
		Q5417	B-2
		Q5418	C-2
		Q5420	C-2
		Q5421	B-2
TRANSISTOR			
Q5201	C-5		
Q5202	C-5		
Q5203	C-5		
Q5300	E-5		
Q5301	E-5		
Q5302	E-5		
Q5303	D-5		
Q5304	D-4		
Q5305	B-4		
Q5306	B-4		
Q5307	B-5		
Q5308	B-2		
Q5309	A-1		
Q5310	C-3		
Q5311	B-2		
Q5312	A-3		
Q5313	C-4		

ADDRESS INFORMATION

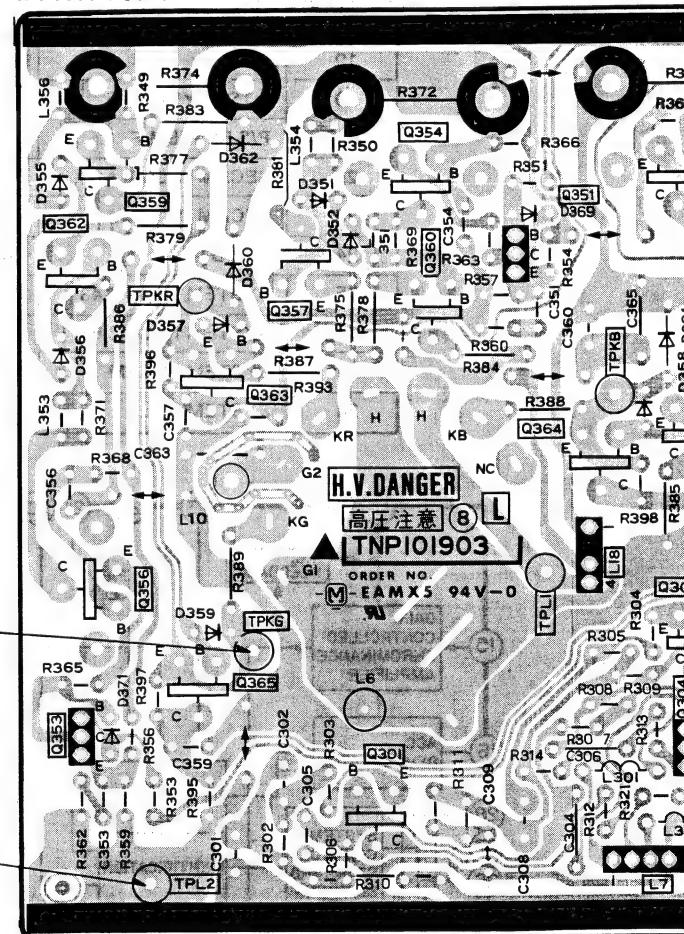
B-P.W. Board TNP110534



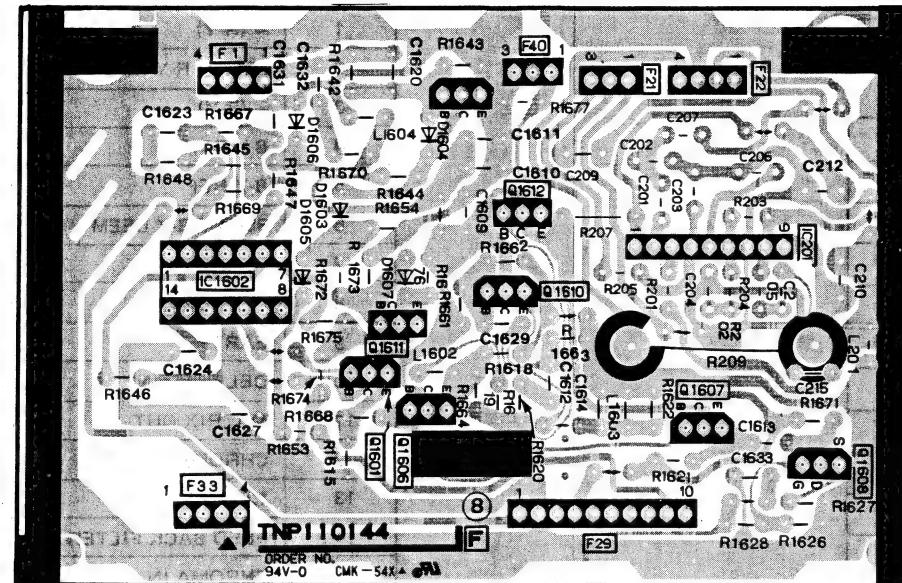
F-P.W. Board TNP110144



L-P.W. Board TNP101903AB

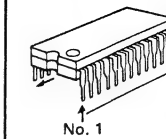


F-P.W. Board TNP110144

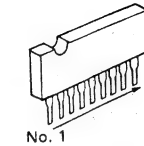


F-P.W. Board	
IC	
IC201	F-9
IC1602	E-7
TRANSISTOR	
Q1601	E-8
Q1606	E-8
Q1607	E-9
Q1608	E-9
Q1609	F-8
Q1610	E-8
ADDRESS INFORMATION	

TERMINAL GUIDE OF IC'S, TRANSISTORS, DIODES



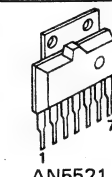
CXA1024S	: 48 Pin	TC4066BP	: 14 Pin
TDA4555	: 28 Pin	AN5860	: 14 Pin
TDA2579A	: 18 Pin	SN74LS86AN	: 14 Pin
AN5613	: 18 Pin	AN6912	: 14 Pin
MC4052BCP	: 16 Pin	LM1881N	: 8 Pin
MC14053BCP	: 16 Pin	TLP621GR	: 4 Pin



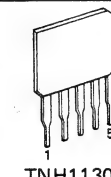
AN5862K	: 13 Pin
AN5265	: 9 Pin
BA236B	: 9 Pin
TA7347P	: 7 Pin
AN614	: 7 Pin



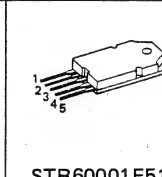
AN78M09	
AN78L09	
SE095	
UPC2412HF	
AN78M20	



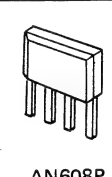
AN5521



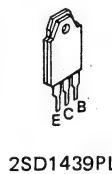
TNH11303



STR60001F51



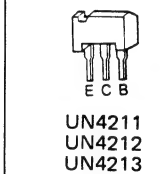
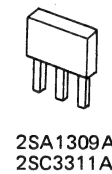
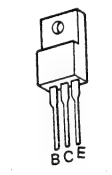
AN608P



2SD1439PLB



2SC1383R

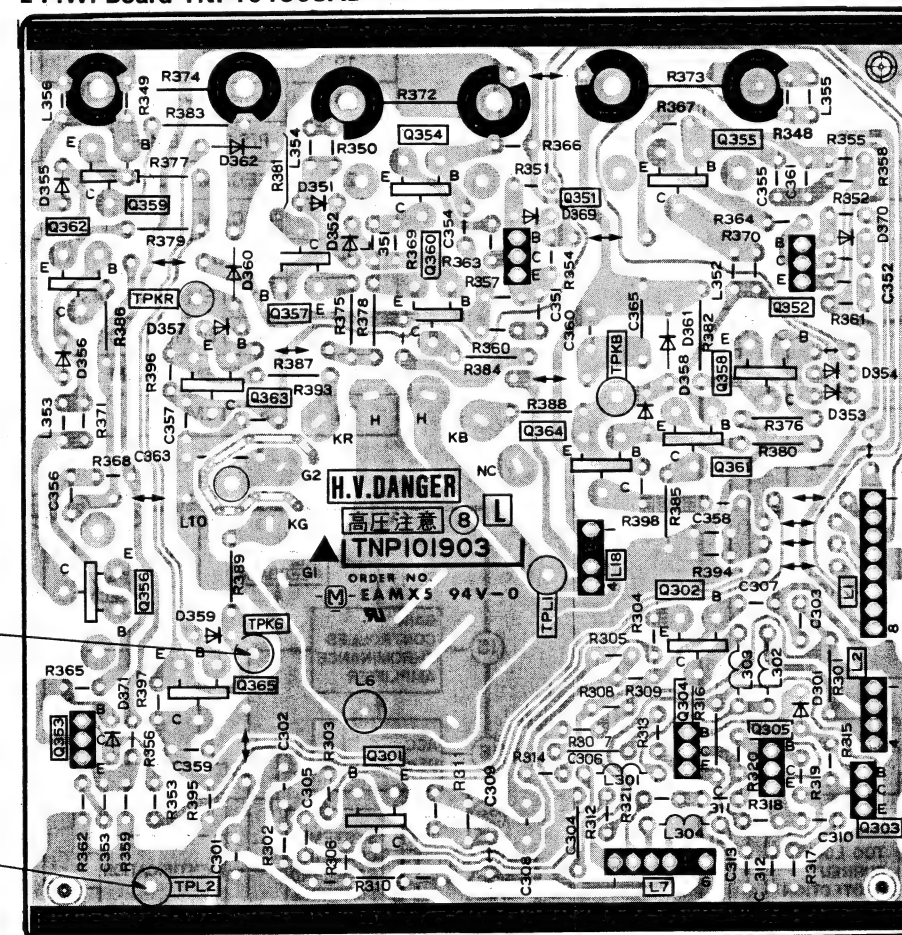
UN4211
UN4212
UN42132SA1309A
2SC3311A

2SC3942RL
2SC1685Q
2SC2653HLB
2SA1605RL
2SA879
2SA683R
2SD1264RL
2SD1499QLB

Diode



L-P.W. Board TNP101903AB



L-P.W. Board	
TRANSISTOR	
Q301	A-8
Q302	B-9
Q303	A-9
Q304	B-9
Q305	B-9
Q351	C-8
Q352	C-9
Q353	B-7
Q354	C-8
Q355	C-9
Q356	B-7
Q357	C-7
Q358	C-9
Q359	C-7
Q360	C-8
Q361	C-9
Q362	C-7
Q363	C-7
Q364	C-8
Q365	B-7
TP	
TPKR	C-7
TPKG	B-7
TPKB	C-9
TPL1	B-8
TPL2	A-7
ADDRESS INFORMATION	

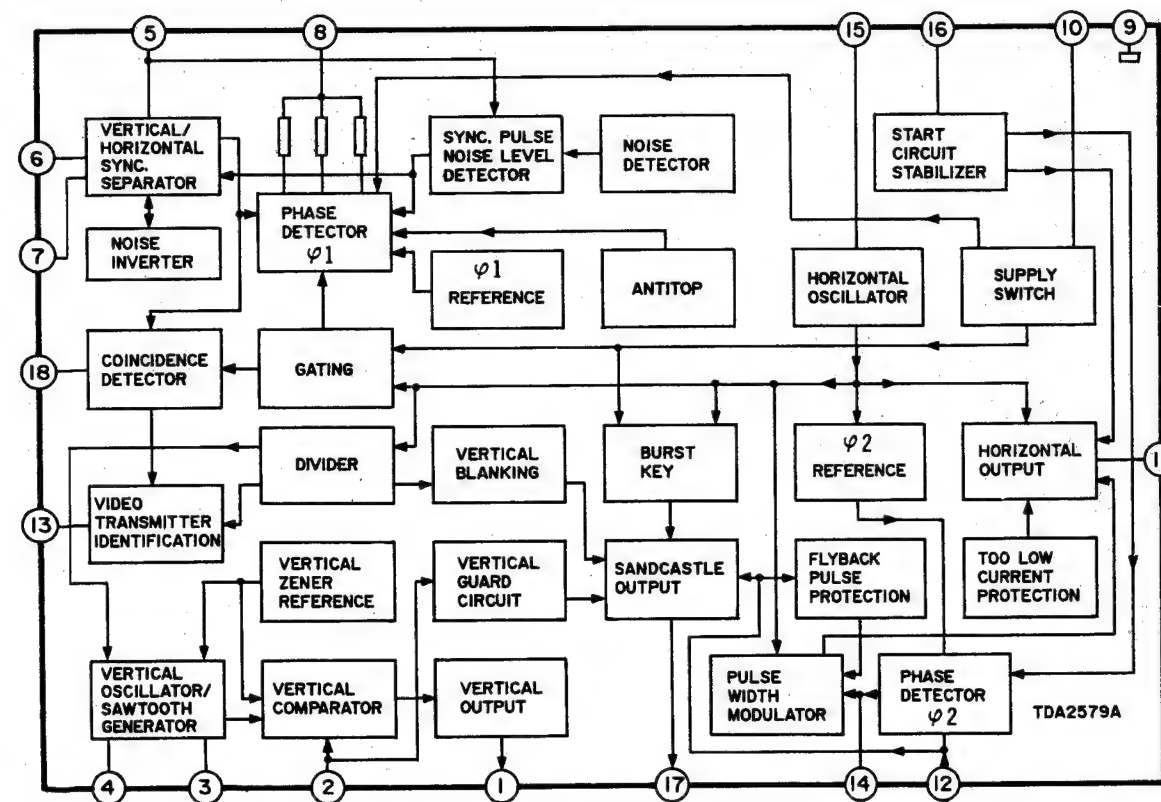
TPKG
Contrast

TPL2
GND

IF Function of Terminal and Equipment Circuit

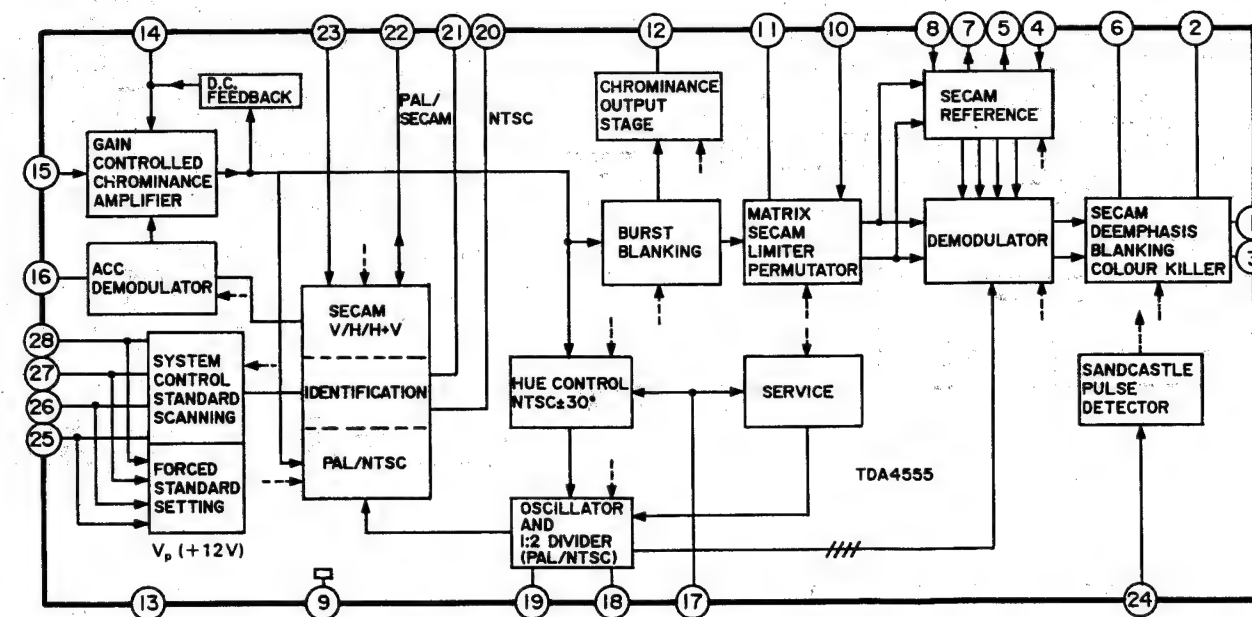
IC501 TDA2579A

PIN NO.	MARK	FUNCTION
1	V. OUT	Vertical Output.
2	V. FEED BACK	
3		Vertical ramp generator
4		Vertical amplitude
5		Video signal input.
6		Black level
7	SYNC SEP.	
8	AFC	
9	EARTH	Earth.
10	Vcc	Supply Voltage
11	H. DRIVE	Horizontal drive output.
12	FBP	Flyback pulse input
13	50/60	
14		Horizontal portion
15		Horizontal OSC.
16		Starter
17	SANDC. OUT	Standcastle output
18		AFC



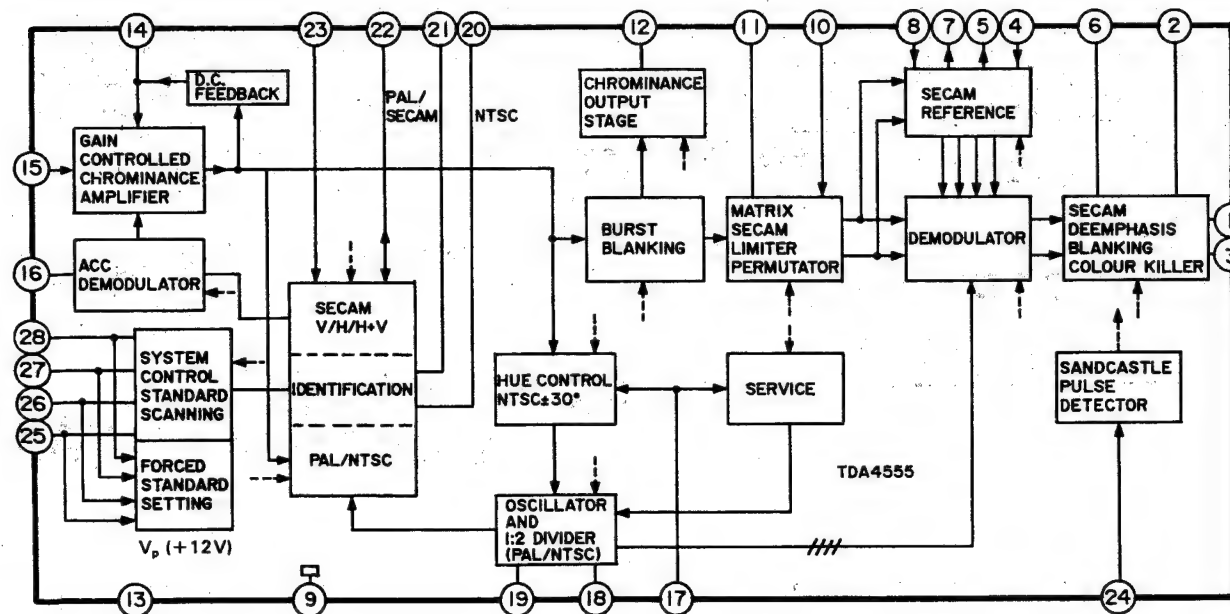
IC603 TDA4555

PIN NO.	MARK	FUNCTION
1	— (R-Y)	— (R-Y) Output
2	SECAM R-Y DEEM	R-Y SECAM deemphasis.
3	— (B-Y)	— (B-Y) Output.
4	B-Y REF	B-Y SECAM reference input.
5	B-Y REF	B-Y SECAM reference output.
6	SECAM B-Y DEEM	B-Y SECAM deemphasis.
7	R-Y REF	R-Y SECAM reference output.
8	R-Y REF	R-Y SECAM reference input.
9	EARTH	Earth.
10	DELAYED IN	64 μ s delay input.
11	MATRIX OUT	MATRIX SECAM limiter output.
12	CHROMA OUT	Chrominance output.
13	12V	Supply Voltage 12V.
14	FEED BACK FILTER	DC feedback.
15	CHROMA IN	Chrominance input.
16	AGC DEMODU.	AGC demodulator.
17	SERVICE (TINT)	Hue control.
18	CLK	PLL
19	CLK	7.16 MHz (NTSC) 8.86 MHz (PAL) Oscillator.
20	NTSC SYSTEM F.	NTSC identification.
21	P/S SYSTEM F.	PAL/SECAM identification.
22	SECAM IDENT ADJ.	SECAM identification reference.
23	SECAM SYS. SW	Earth.
24	SAND	Sandcastle pulse input.
25	SYSTEM NTSC 4.43	NTSC 4.43 MHz recognize input/output.
26	SYSTEM NTSC 3.58	NTSC 3.58 MHz recognize input/output.
27	SYSTEM SECAM	SECAM recognize input/output.
28	SYSTEM PAL	PAL recognize input/output.



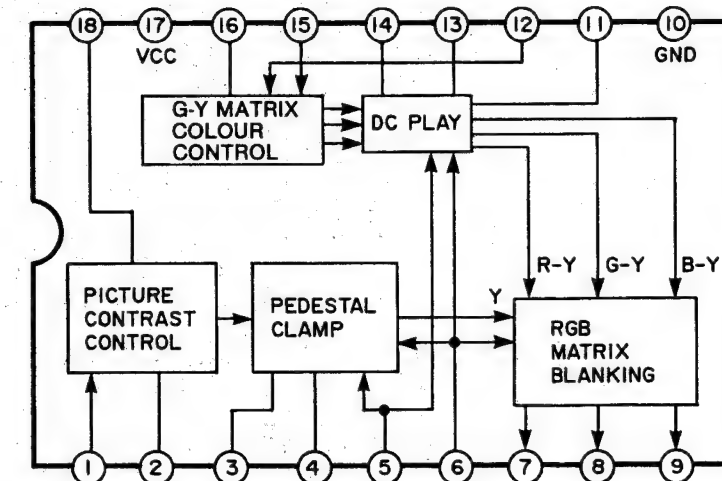
IC603 TDA4555

PIN NO.	MARK	FUNCTION
1	— (R-Y)	— (R-Y) Output
2	SECAM R-Y DEEM	R-Y SECAM deemphasis.
3	— (B-Y)	— (B-Y) Output.
4	B-Y REF	B-Y SECAM reference input.
5	B-Y REF	B-Y SECAM reference output.
6	SECAM B-Y DEEM	B-Y SECAM deemphasis.
7	R-Y REF	R-Y SECAM reference output.
8	R-Y REF	R-Y SECAM reference input.
9	EARTH	Earth.
10	DELAYED IN	64 μ s delay input.
11	MATRIX OUT	MATRIX SECAM limiter output.
12	CHROMA OUT	Chrominance output.
13	12V	Supply Voltage 12V.
14	FEED BACK FILTER	DC feedback.
15	CHROMA IN	Chrominance input.
16	AGC DEMODU.	AGC demodulator.
17	SERVICE (TINT)	Hue control.
18	CLK	PLL
19	CLK	7.16 MHz (NTSC) 8.86 MHz (PAL) Oscillator.
20	NTSC SYSTEM F.	NTSC identification.
21	P/S SYSTEM F.	PAL/SECAM identification.
22	SECAM IDENT ADJ.	SECAM identification reference.
23	SECAM SYS. SW	Earth.
24	SAND	Sandcastle pulse input.
25	SYSTEM NTSC 4.43	NTSC 4.43 MHz recognize input/output.
26	SYSTEM NTSC 3.58	NTSC 3.58 MHz recognize input/output.
27	SYSTEM SECAM	SECAM recognize input/output.
28	SYSTEM PAL	PAL recognize input/output.



IC606 AN5613

PIN NO.	MARK	FUNCTION
1	Y IN	Luminance (Y) signal input.
2	PICTURE	Picture control.
3	Y CLAMP	Y clamp condensor.
4	BRIGHT	Brightness control.
5	CLAMP	Pedestal clamp pulse input.
6	BLK	Blanking pulse input.
7	R OUT	R signal output.
8	G OUT	G signal output.
9	B OUT	B signal output.
10	GND	Earth.
11	(B-Y) C	B-Y clamp condensor.
12	(B-Y) IN	B-Y signal input.
13	(G-Y) CLAMP	G-Y clamp condensor.
14	(R-Y) C	R-Y clamp condensor.
15	(R-Y) IN	R-Y signal input.
16	COLOR	Colour control.
17	Vcc	Supply voltage.
18	CONT.	Contrast control.



IC3301 CXA1024S

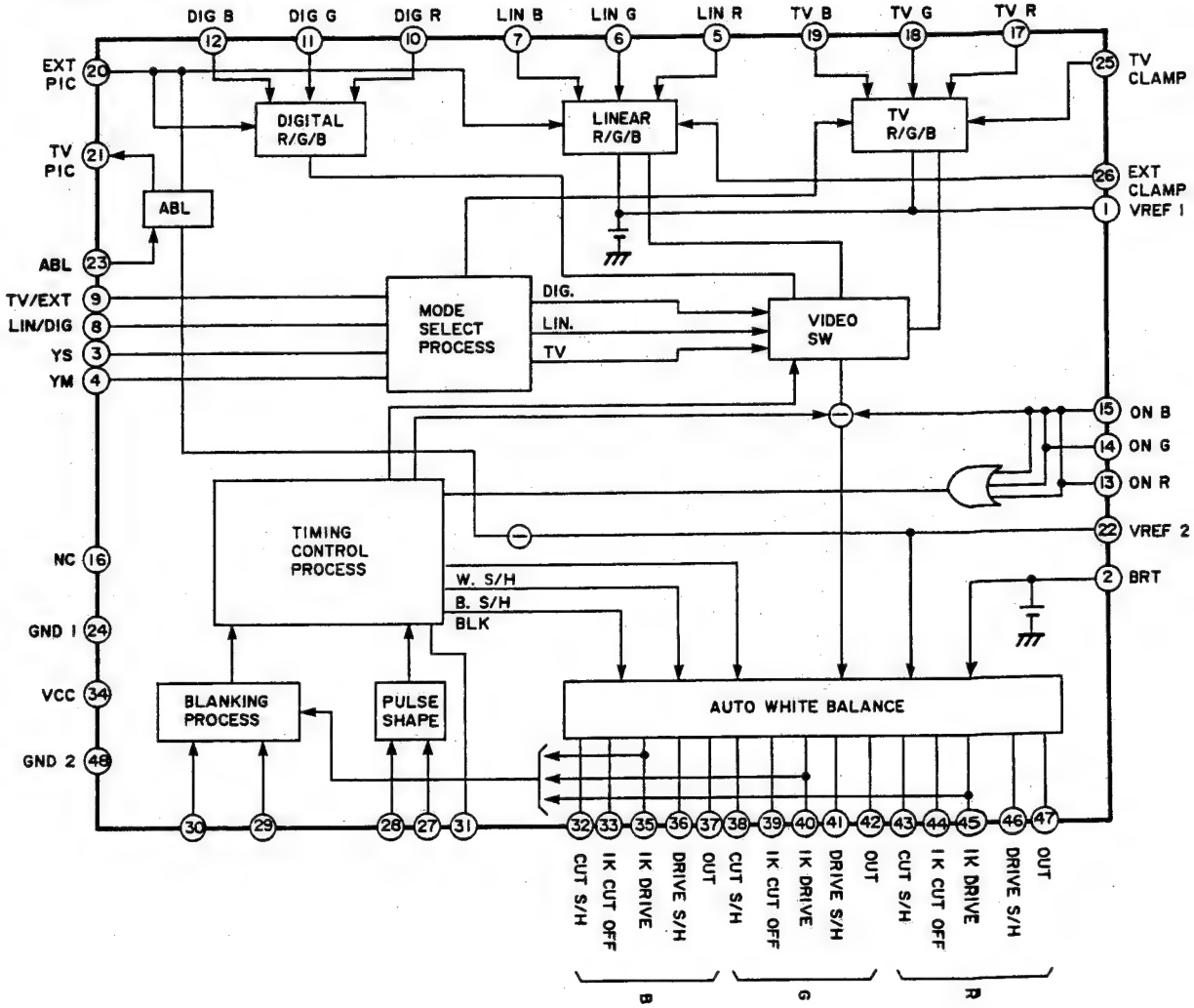
PIN NO.	MARK	FUNCTION
1	VREF1	Clamp standard voltage.
2	VREF2	Detect standard voltage.
3	YM	YM switch control.
4	Ys	Ys switch control.
5	LIN R	R, G, B signal input at Linear input mode.
6	LIN G	
7	LIN B	
8	LIN/DIG	Linear/Digital input mode select control.
9	TV/EXT	TV/EXT (Lin./Dig.) input mode select control.
10	DIG R	R, G, B signal input at Digital input mode.
11	DIG G	
12	DIG B	
13	ON R	R, G, B signal input at On screen display.
14	ON G	
15	ON B	
16	NC	Not connected.
17	TV R	R, G, B signal input at TV input mode.
18	TV G	
19	TV B	
20	EXT PIC	Picture control for Ext. signal (Lin./Dig.).
21	NC	Not connected.
22	BRT	Brightness control.
23	ABL	Decrease the picture and brightness control gain by DC voltage for inputted ABL. (PIC ABL : Less than 4.5V, BRT ABL : Less than 2.0V)
24	GND1	Earth.
25	TV CLAMP	Clamp timing pulse input for TV input terminal.
26	EXT CLAMP	Clamp timing pulse input for Linear input terminal.
27	H. PULSE	Horizontal pulse input.
28	V. PULSE	Vertical pulse input.
29	MUTE	Terminal determined video mute time at SW on.
30	BLK	Blanking terminal for all period.
31	SW	ON/OFF output for Drive IK resistor.
32	B CUT S/H	Sample hold terminal for cut off control.
38	G CUT S/H	
43	R CUT S/H	
33	B IK OUT OFF	IK input (Cut off control for signal output).
39	G IK OUT OFF	
44	R IK CUT OFF	
34	Vcc	Supply voltage.
35	B IK DRIVE	IK input (Drive control for signal output).
40	G IK DRIVE	
45	R IK DRIVE	
36	B DRIVE S/H	Sample hold terminal for drive control.
41	G DRIVE S/H	
46	R DRIVE S/H	
37	B OUT	R, G, B signal output.
42	G OUT	
47	R OUT	
48	GND2	Earth.

Input/Output Truth Value Table

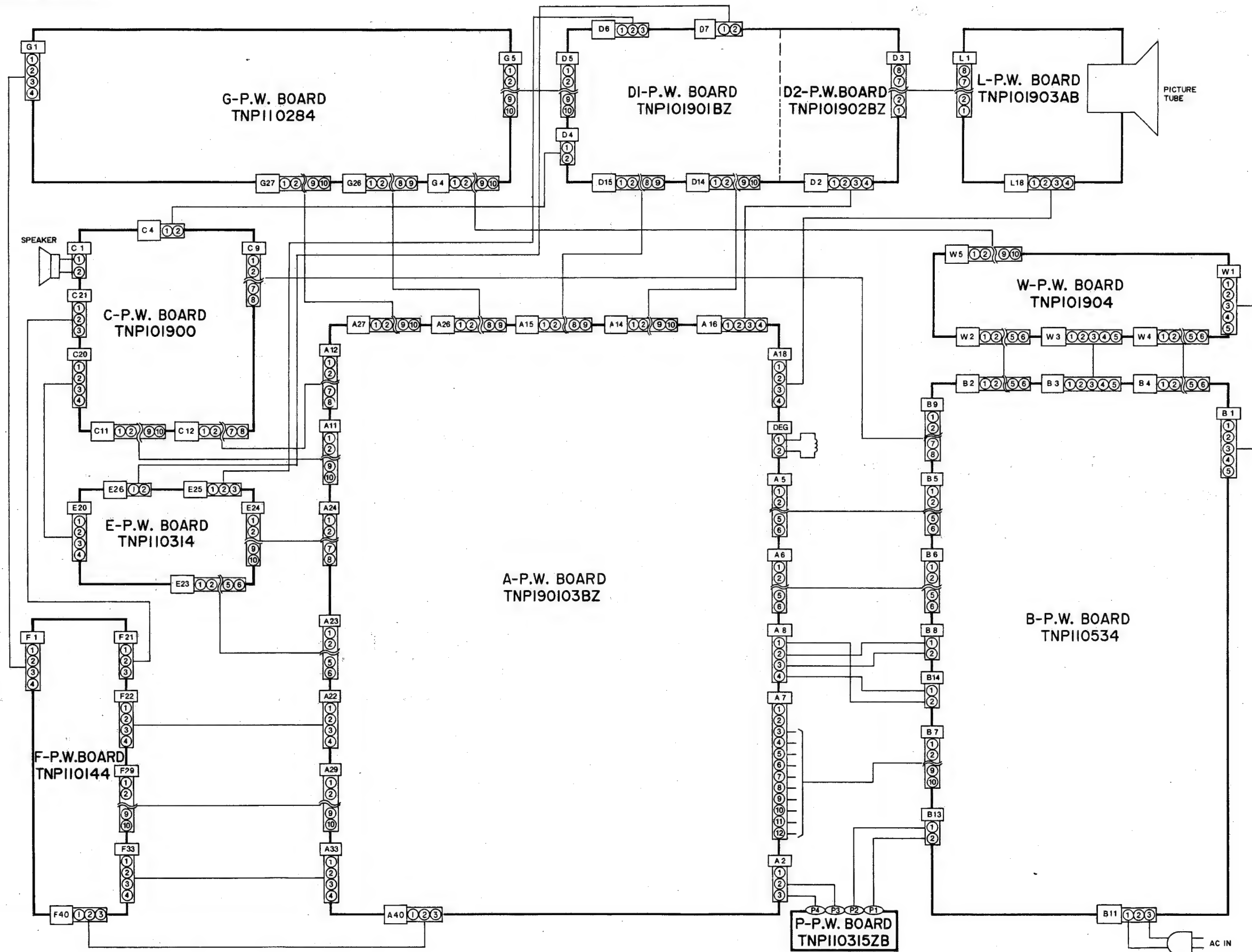
TV/EXT	H	L		
LIN/DIG	X	H		L
Ys	X	L	H	X
YM	X	L	H	X
Control Mode	TV	TV	TV -6dB	LIN
				DIG

LIN : Linear
DIG : Digital

IC3301 CXA1024S



Interconnections



IC3301 CXA1024S

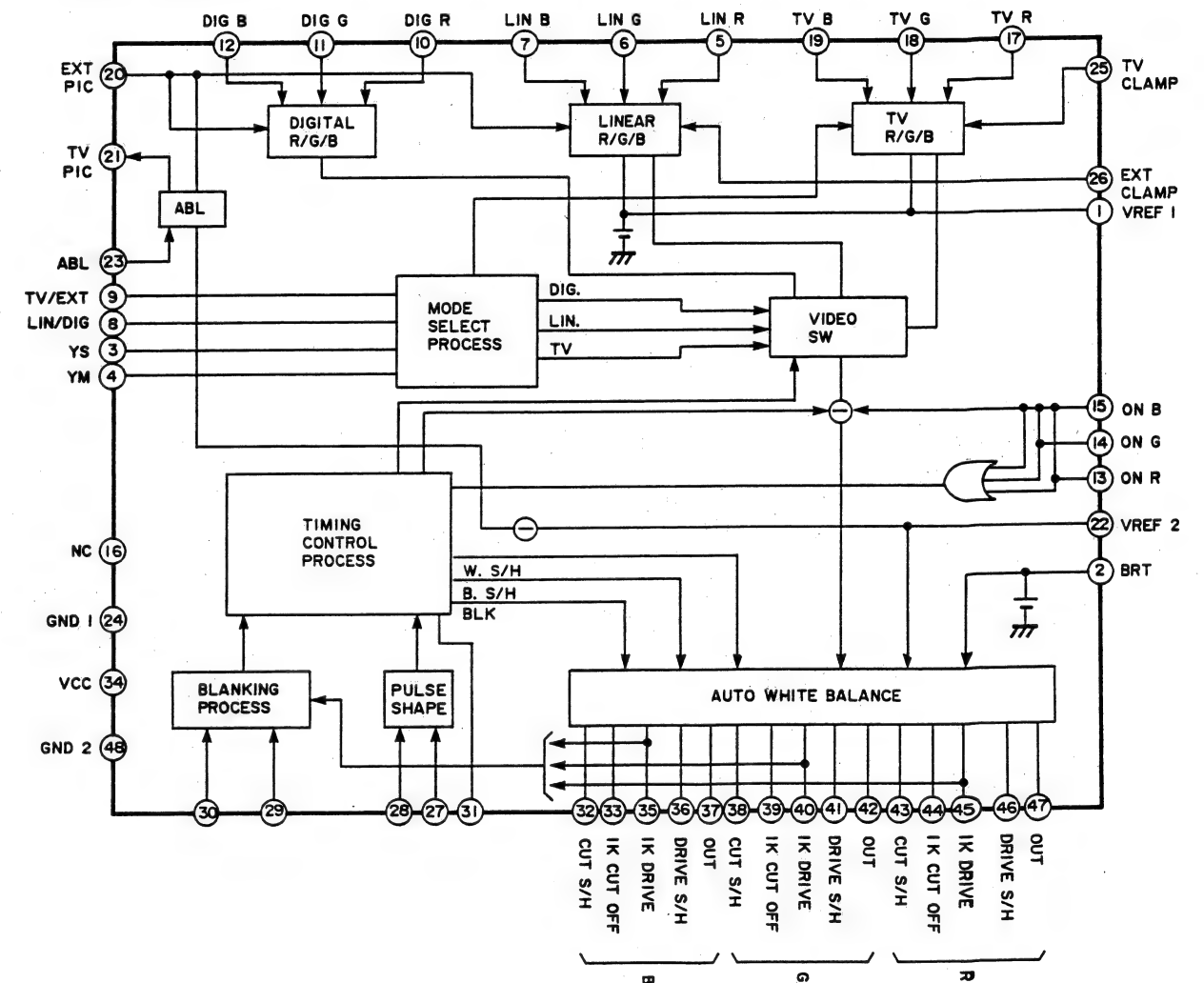
PIN NO.	MARK	FUNCTION
1	VREF1	Clamp standard voltage.
2	VREF2	Detect standard voltage.
3	YM	YM switch control.
4	Ys	Ys switch control.
5	LIN R	R, G, B signal input at Linear input mode.
6	LIN G	
7	LIN B	
8	LIN/DIG	Linear/Digital input mode select control.
9	TV/EXT	TV/EXT (Lin./Dig.) input mode select control.
10	DIG R	R, G, B signal input at Digital input mode.
11	DIG G	
12	DIG B	
13	ON R	R, G, B signal input at On screen display.
14	ON G	
15	ON B	
16	NC	Not connected.
17	TV R	R, G, B signal input at TV input mode.
18	TV G	
19	TV B	
20	EXT PIC	Picture control for Ext. signal (Lin./Dig.).
21	NC	Not connected.
22	BRT	Brightness control.
23	ABL	Decrease the picture and brightness control gain by DC voltage for inputted ABL. (PIC ABL : Less than 4.5V, BRT ABL : Less than 2.0V)
24	GND1	Earth.
25	TV CLAMP	Clamp timing pulse input for TV input terminal.
26	EXT CLAMP	Clamp timing pulse input for Linear input terminal.
27	H. PULSE	Horizontal pulse input.
28	V. PULSE	Vertical pulse input.
29	MUTE	Terminal determined video mute time at SW on.
30	BLK	Blanking terminal for all period.
31	SW	ON/OFF output for Drive IK resistor.
32	B CUT S/H	Sample hold terminal for cut off control.
38	G CUT S/H	
43	R CUT S/H	
33	B IK OUT OFF	IK input (Cut off control for signal output).
39	G IK OUT OFF	
44	R IK CUT OFF	
34	Vcc	Supply voltage.
35	B IK DRIVE	IK input (Drive control for signal output).
40	G IK DRIVE	
45	R IK DRIVE	
36	B DRIVE S/H	Sample hold terminal for drive control.
41	G DRIVE S/H	
46	R DRIVE S/H	
37	B OUT	R, G, B signal output.
42	G OUT	
47	R OUT	
48	GND2	Earth.

Input/Output Truth Value Table

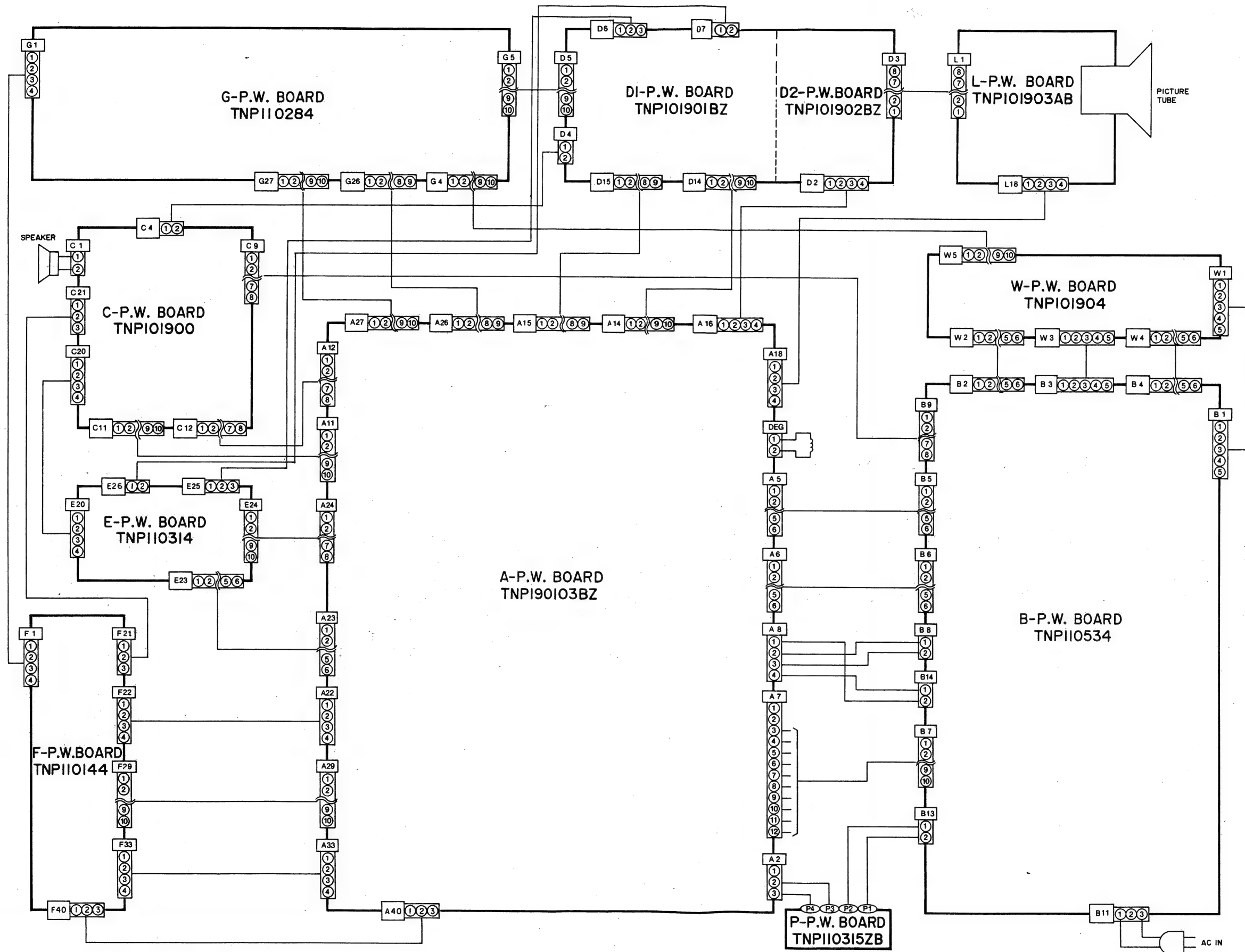
TV/EXT	H	L			
LIN/DIG	X	H		L	
Ys	X	L	H	X	X
YM	X	L	H	X	X
Control Mode	TV	TV	TV -6dB	LIN	DIG

LIN : Linear
DIG : Digital

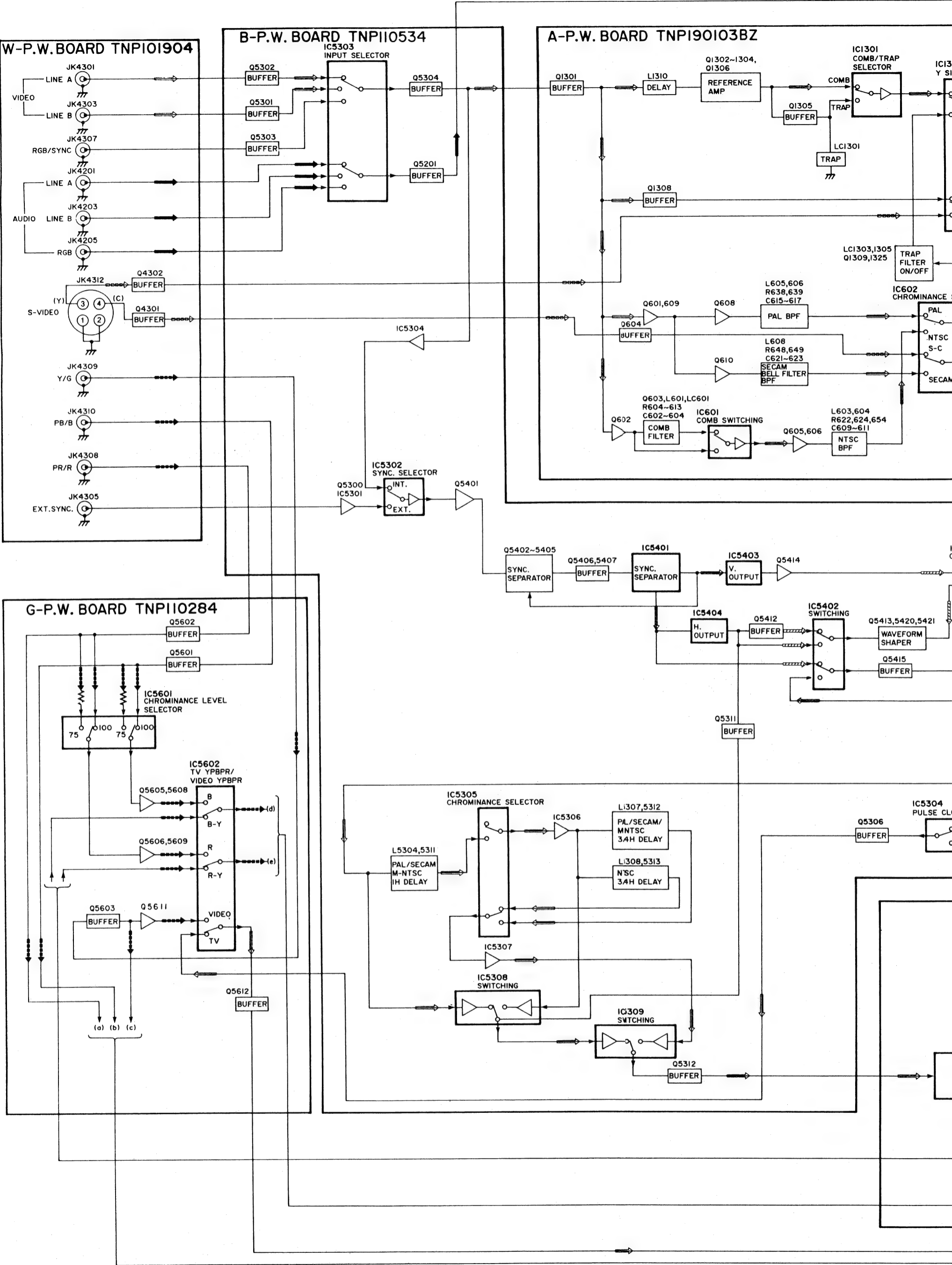
IC3301 CXA1024S

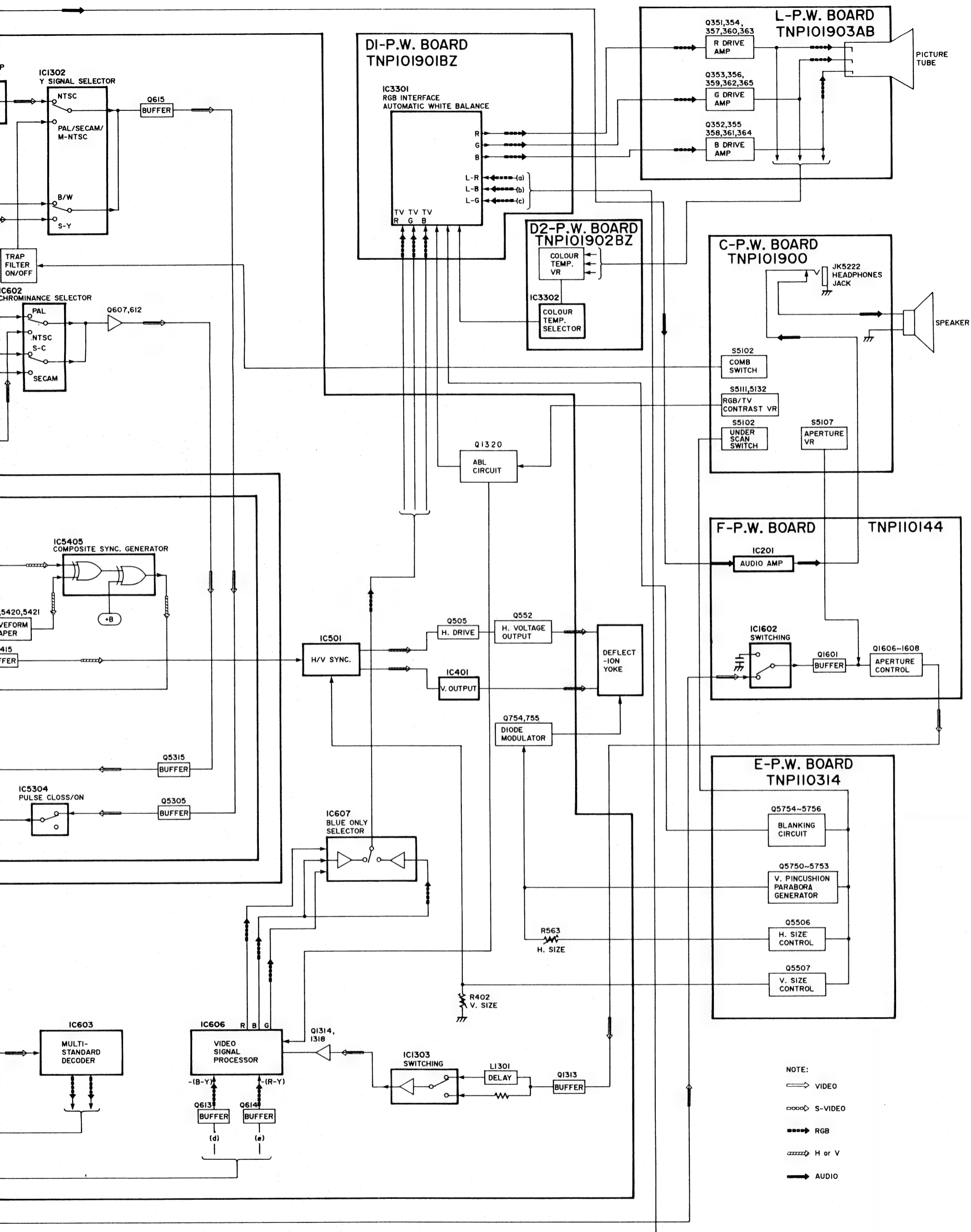


Interconnections



Block Diagram





Schematic Diagram for Model BT-H1450Y/YG (Chassis G16M)

Important safety notice

Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

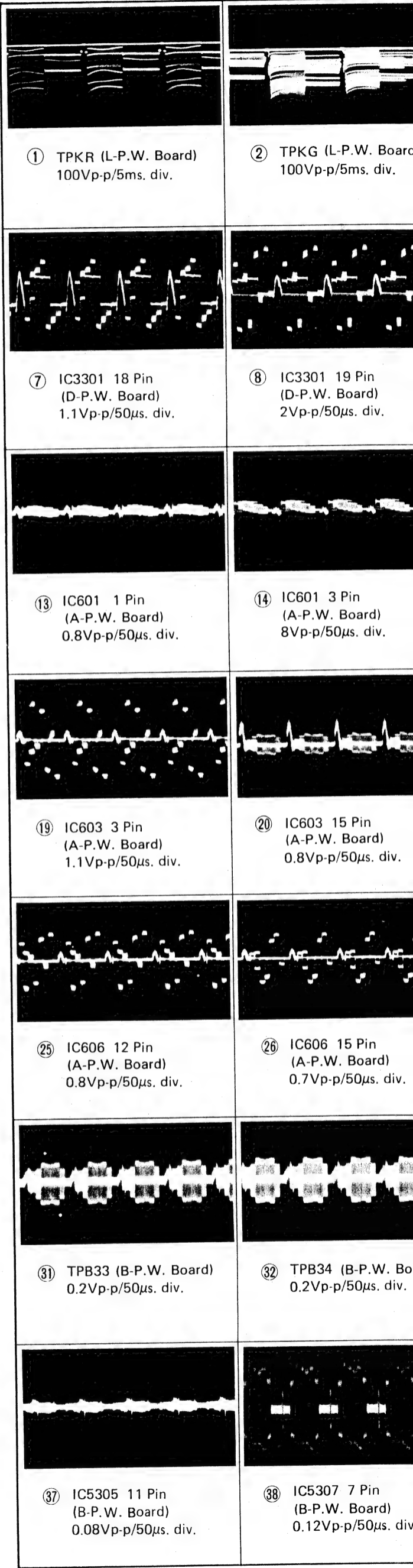
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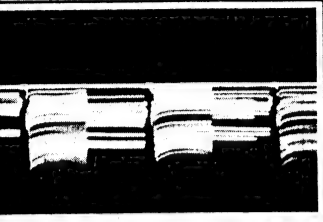
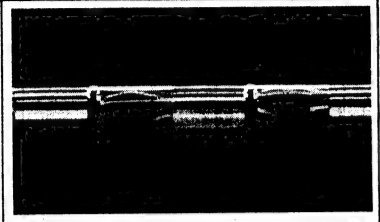
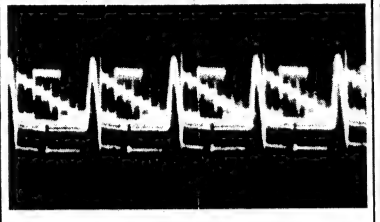
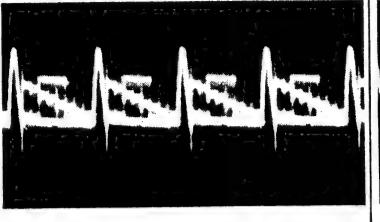
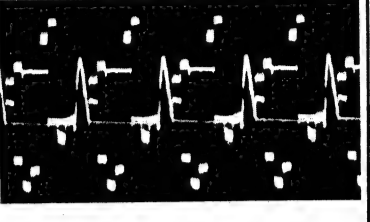
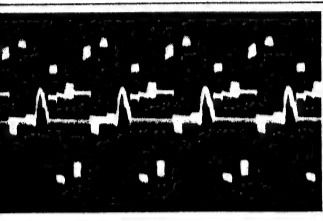
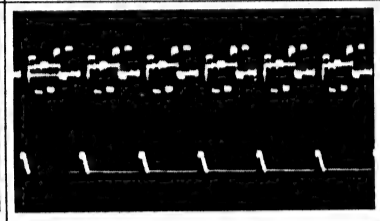
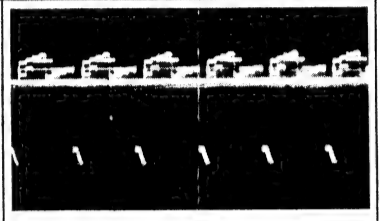
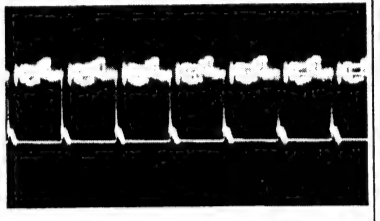
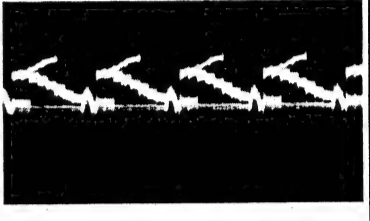
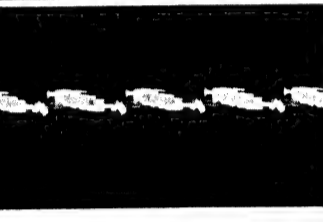
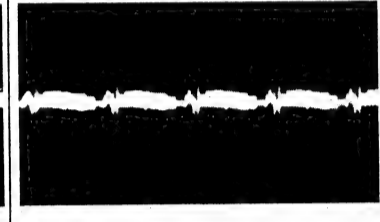
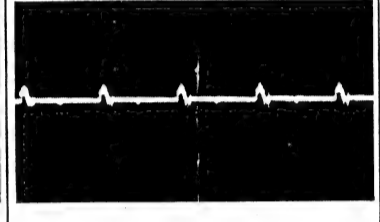
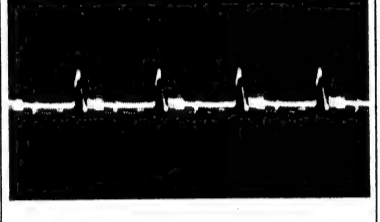
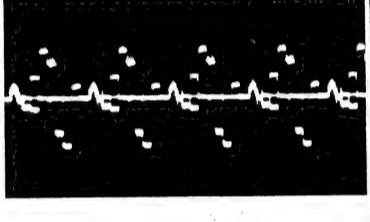
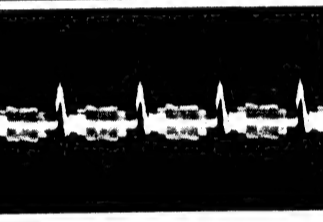
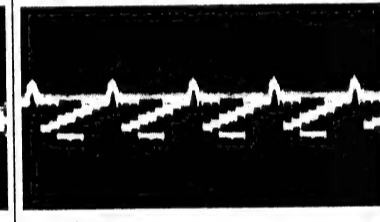
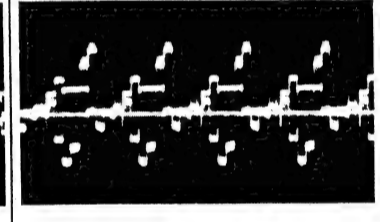

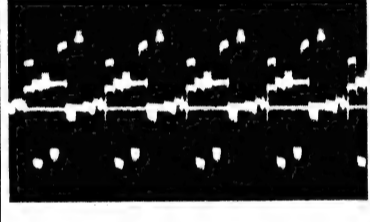
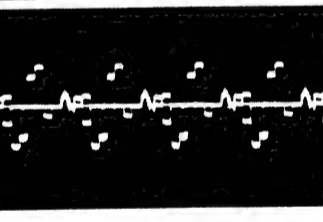
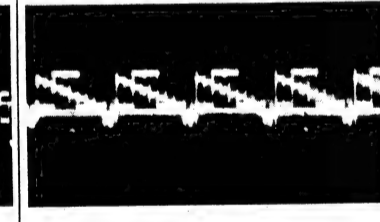
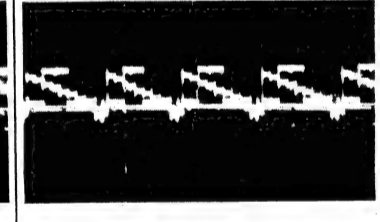
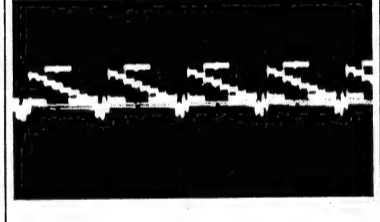

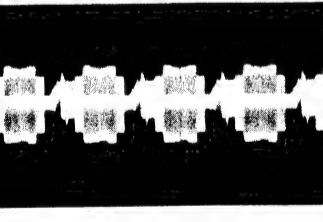
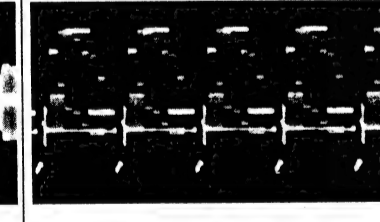

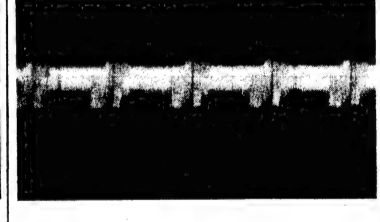
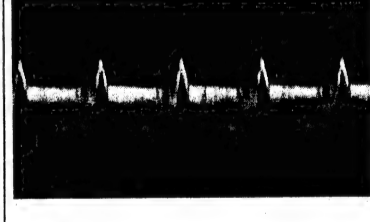
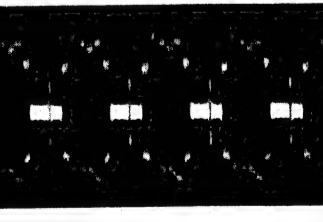
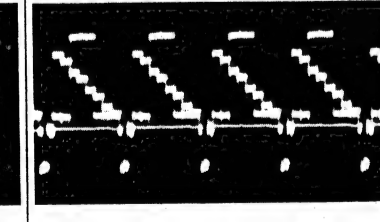

- 1. S801 : Power switch in OFF position.
- 2. S3301 : Lever switch in B position.
- 3. S4301 : BNC/S-VIDEO switch in S-VIDEO position.
- 4. S4302 : Impedance selector switch in 75 Ω .
- 5. S4303 : BNC/8P switch in BNC position.
- 6. S4304 : Colour temp. selector switch in 9300° K.
- 7. S4305 : Chroma level turning switch.
- 8. S5101 : Input selector switches in LINE A.
- 9. S5102 : Operation switches (Sync/Blue only/Underscan/P. Cross/Comb/CLR· BW/AFC).
- 10. S5103 : TV system selector switch.
- 11. RESISTOR
All resistors are carbon 1/4W resistor, unless specified otherwise.
Unit of resistance is OHM (Ω), (K = 1,000, M = 1,000,000).
- 12. CAPACITOR
All capacitors are ceramic 50V capacitor, unless specified otherwise.
Unit of capacitance is μ F, unless otherwise noted.
- 13. COIL
Unit of inductance is μ H.
- 14. TEST POINT
 \bullet : Test point position.
- 15. VOLTAGE MEASUREMENT
Voltage is measured by an electronic voltmeter receiving rainbow colour bar signal when all customer's are set to fully clockwise position.
- 16. This schematic diagram is the latest at the time of printing and subject to change without notice.
- 17.
 - Positive voltage lines
 - Video signal
 - S-Video signal
 - RGB signal
 - V or H output signal
 - Audio signal

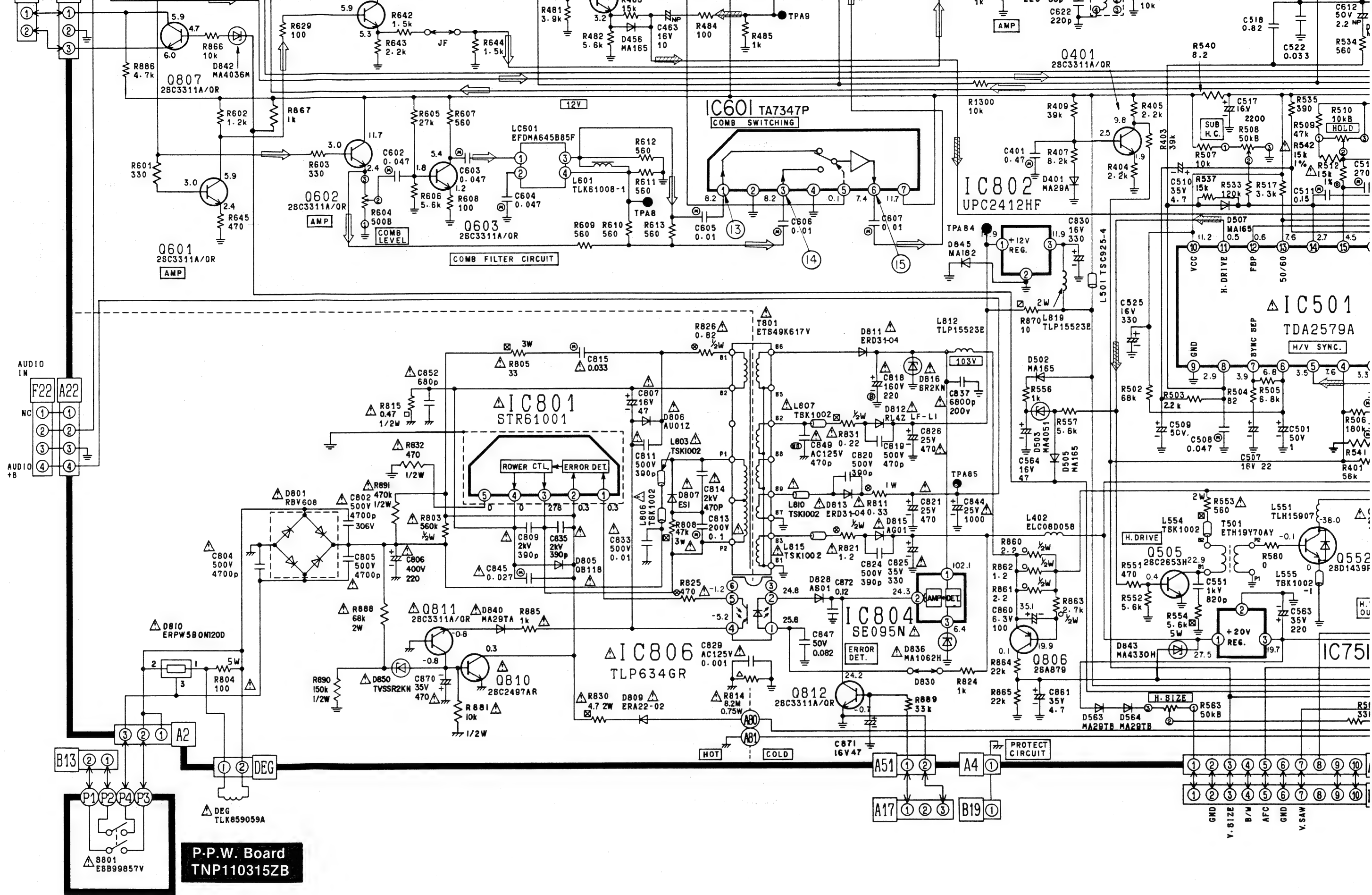
Note:
The power Circuit board contains a circuit area which uses separate power supply to isolate the earth connection.
The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions.

PRECAUTIONS

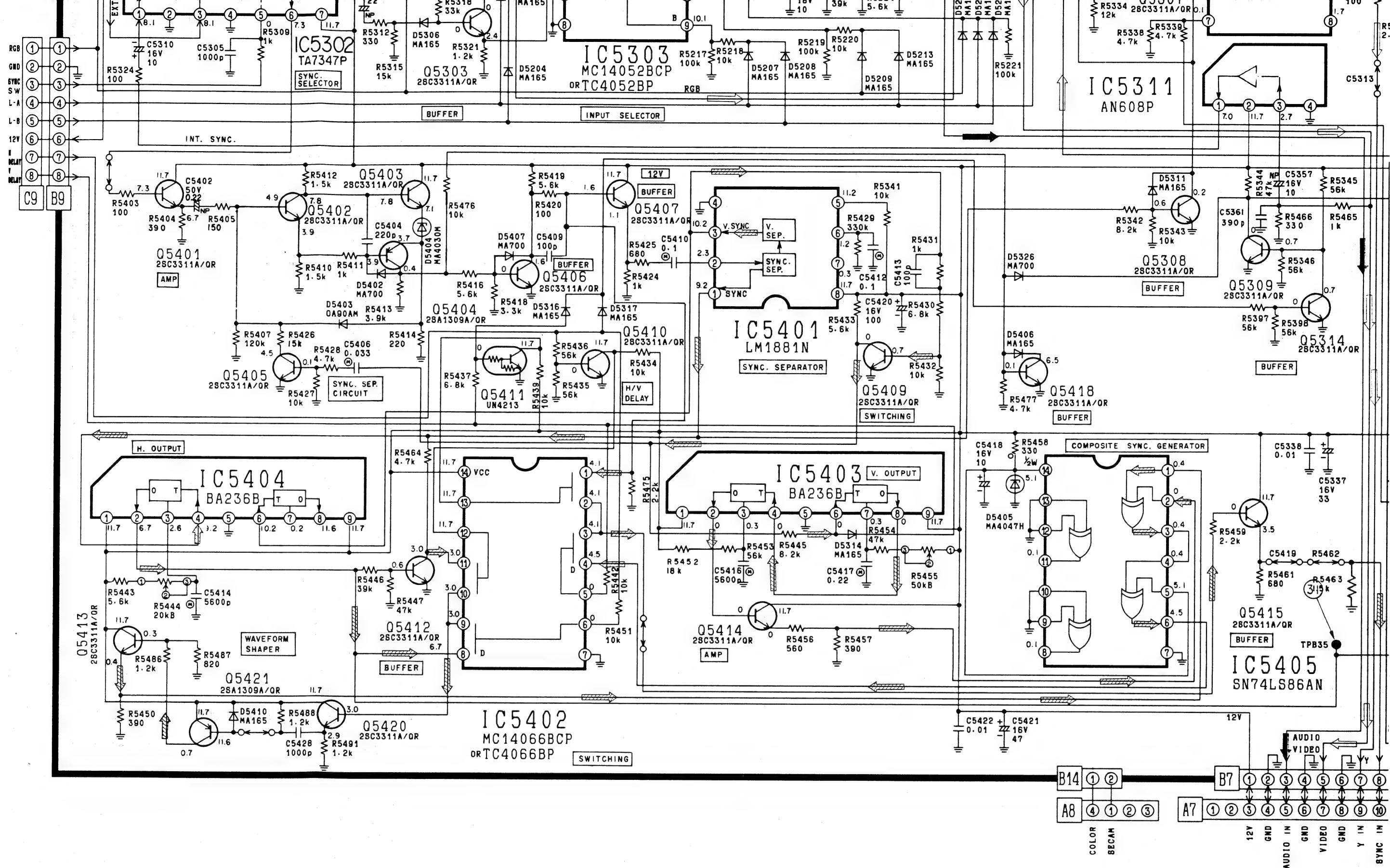
- 1. Do not touch the hot part or the hot and cold parts at the same time or you may receive a shock.
- 2. Do not short-circuit the hot and cold circuits or a fuse may blow and parts may break
- 3. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
Connect the earth of instruments to the earth connection of the circuit being measured.
- 4. Make sure to disconnect the power plug before removing the chassis.



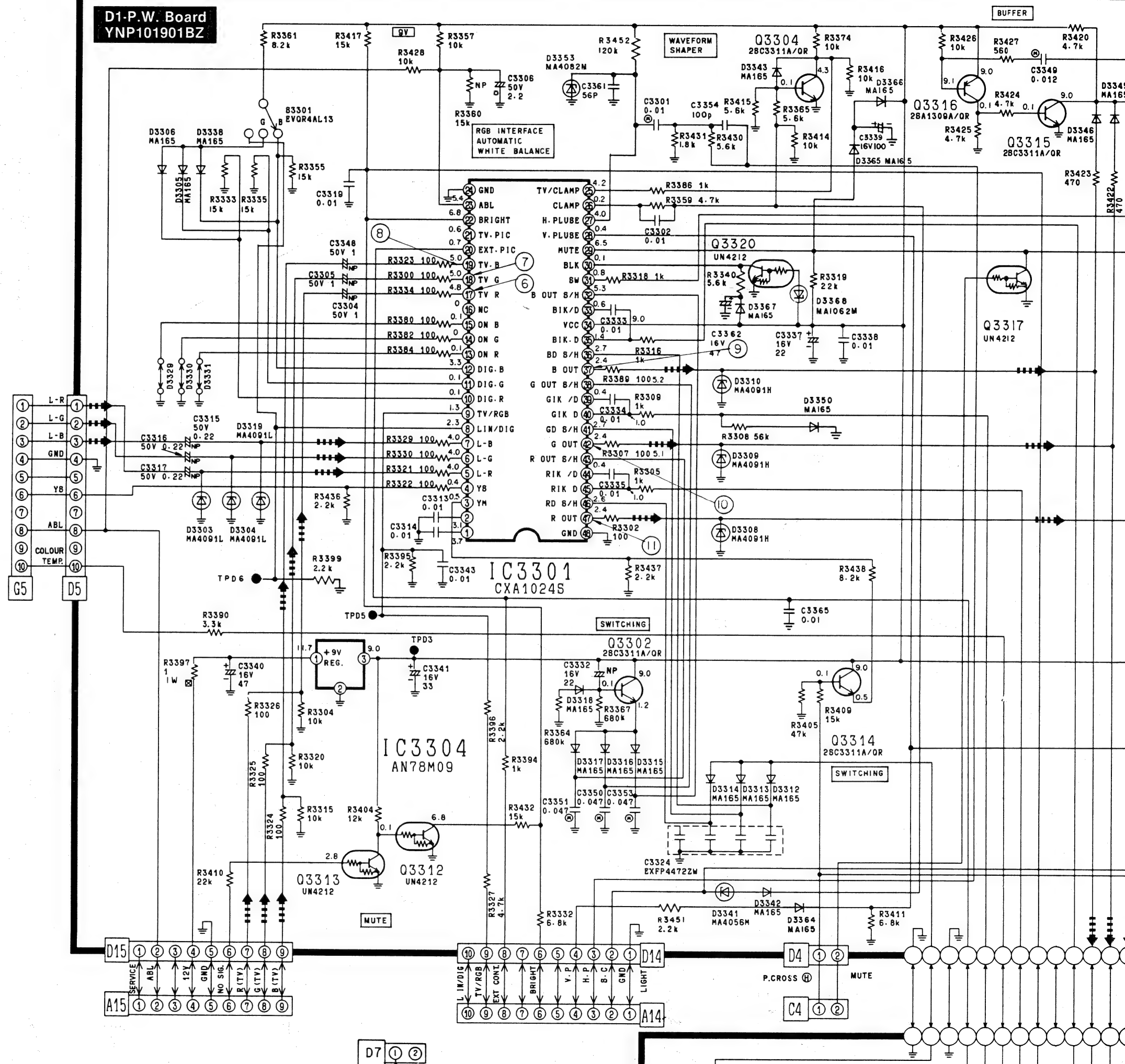
				
② TPKG (L-P.W. Board) 100Vp-p/5ms. div.	③ TPKB (L-P.W. Board) 48Vp-p/5ms. div.	④ IC5602 14 Pin (G-P.W. Board) 0.88Vp-p/50μs. div.	⑤ IC1602 10 Pin (F-P.W. Board) 0.96Vp-p/50μs. div.	⑥ IC3301 17 Pin (D-P.W. Board) 1.5Vp-p/50μs. div.
				
⑧ IC3301 19 Pin (D-P.W. Board) 2Vp-p/50μs. div.	⑨ IC3301 37 Pin (D-P.W. Board) 4.2Vp-p/50μs. div.	⑩ IC3301 42 Pin (D-P.W. Board) 4.6Vp-p/50μs. div.	⑪ IC3301 47 Pin (D-P.W. Board) 4.6Vp-p/50μs. div.	⑫ TPA5 (A-P.W. Board) 1.1Vp-p/50μs. div.
				
⑭ IC601 3 Pin (A-P.W. Board) 8Vp-p/50μs. div.	⑮ IC601 6 Pin (A-P.W. Board) 8Vp-p/50μs. div.	⑯ IC602 1 Pin (A-P.W. Board) 8Vp-p/50μs. div.	⑰ IC602 8 Pin (A-P.W. Board) 0.7Vp-p/50μs. div.	⑱ IC603 1 Pin (A-P.W. Board) 0.85Vp-p/50μs. div.
				
⑳ IC603 15 Pin (A-P.W. Board) 0.8Vp-p/50μs. div.	㉑ IC606 1 Pin (A-P.W. Board) 1.15Vp-p/50μs. div.	㉒ IC606 7 Pin (A-P.W. Board) 2.1Vp-p/50μs. div.	㉓ IC606 8 Pin (A-P.W. Board) 1.5Vp-p/50μs. div.	㉔ IC606 9 Pin (A-P.W. Board) 2.3Vp-p/50μs. div.
				
㉖ IC606 15 Pin (A-P.W. Board) 0.7Vp-p/50μs. div.	㉗ IC1301 1 Pin (A-P.W. Board) 0.7Vp-p/50μs. div.	㉘ IC1301 3 Pin (A-P.W. Board) 0.7Vp-p/50μs. div.	㉙ IC1301 6 Pin (A-P.W. Board) 0.85Vp-p/50μs. div.	㉚ Q612 - E (A-P.W. Board) 0.85Vp-p/50μs. div.
				
㉜ TPB34 (B-P.W. Board) 0.2Vp-p/50μs. div.	㉝ IC503 3 Pin (B-P.W. Board) 0.48Vp-p/50μs. div.	㉞ IC5305 1 Pin (E-P.W. Board) 0.3Vp-p/50μs. div.	㉟ IC5303 4 Pin (B-P.W. Board) 0.08Vp-p/50μs. div.	㊱ IC5305 8 Pin (B-P.W. Board) 0.08Vp-p/50μs. div.
				
㊲ IC5307 7 Pin (B-P.W. Board) 0.12Vp-p/50μs. div.	㊳ Q5305 - B (B-P.W. Board) 0.46Vp-p/50μs. div.	㊴ Q315 - B (E-P.W. Board) 0.2Vp-p/50μs. div.		

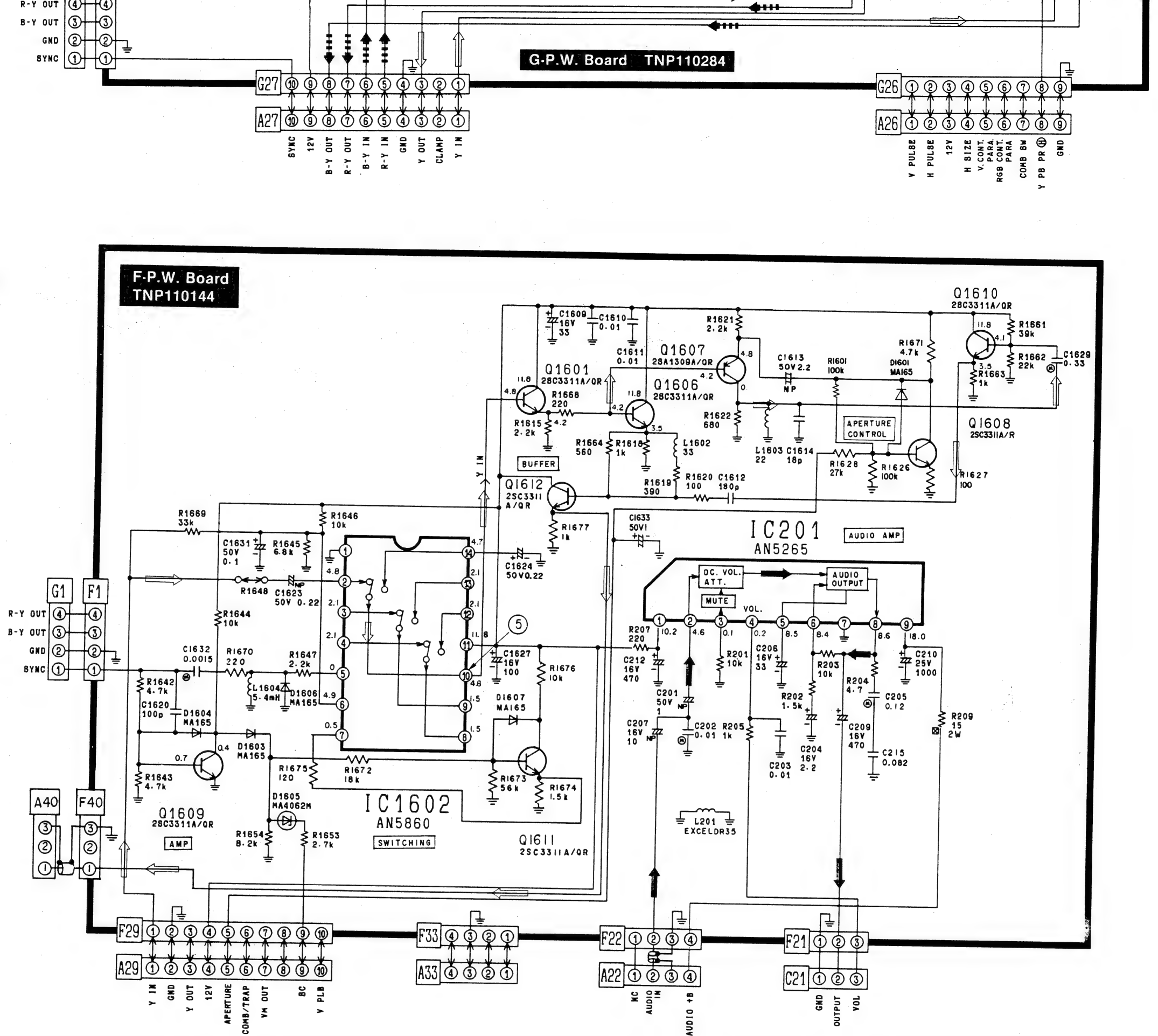
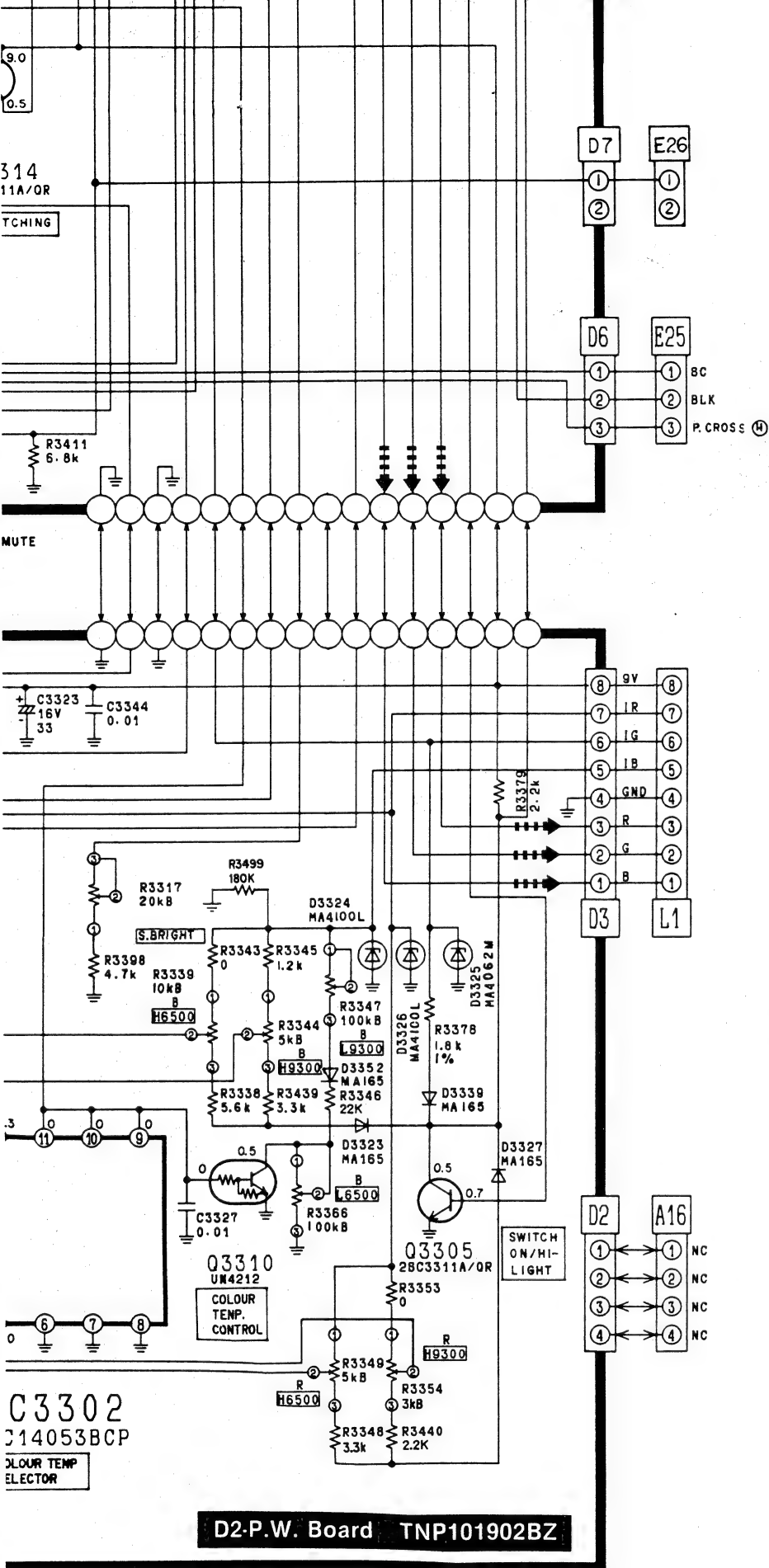


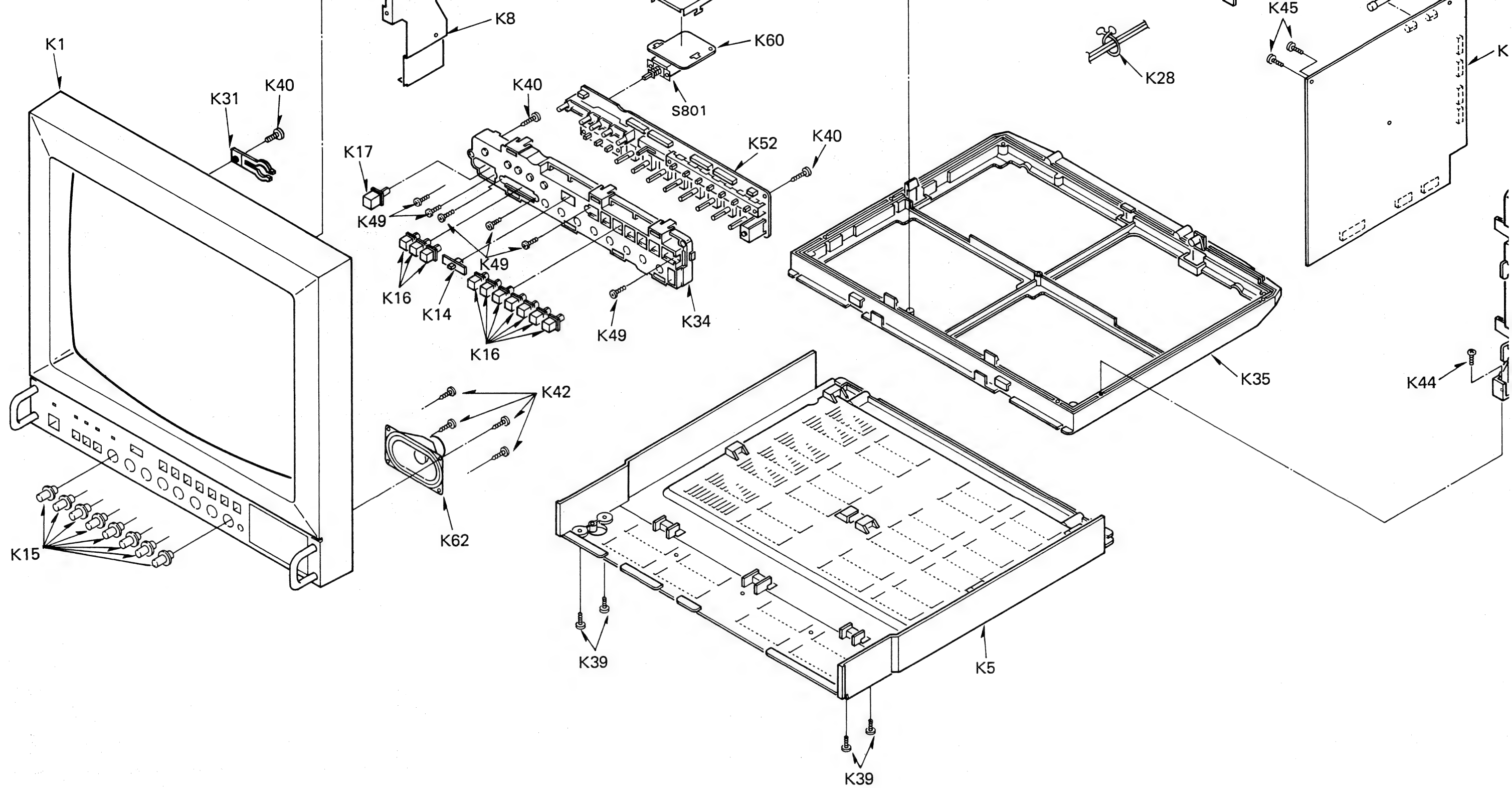


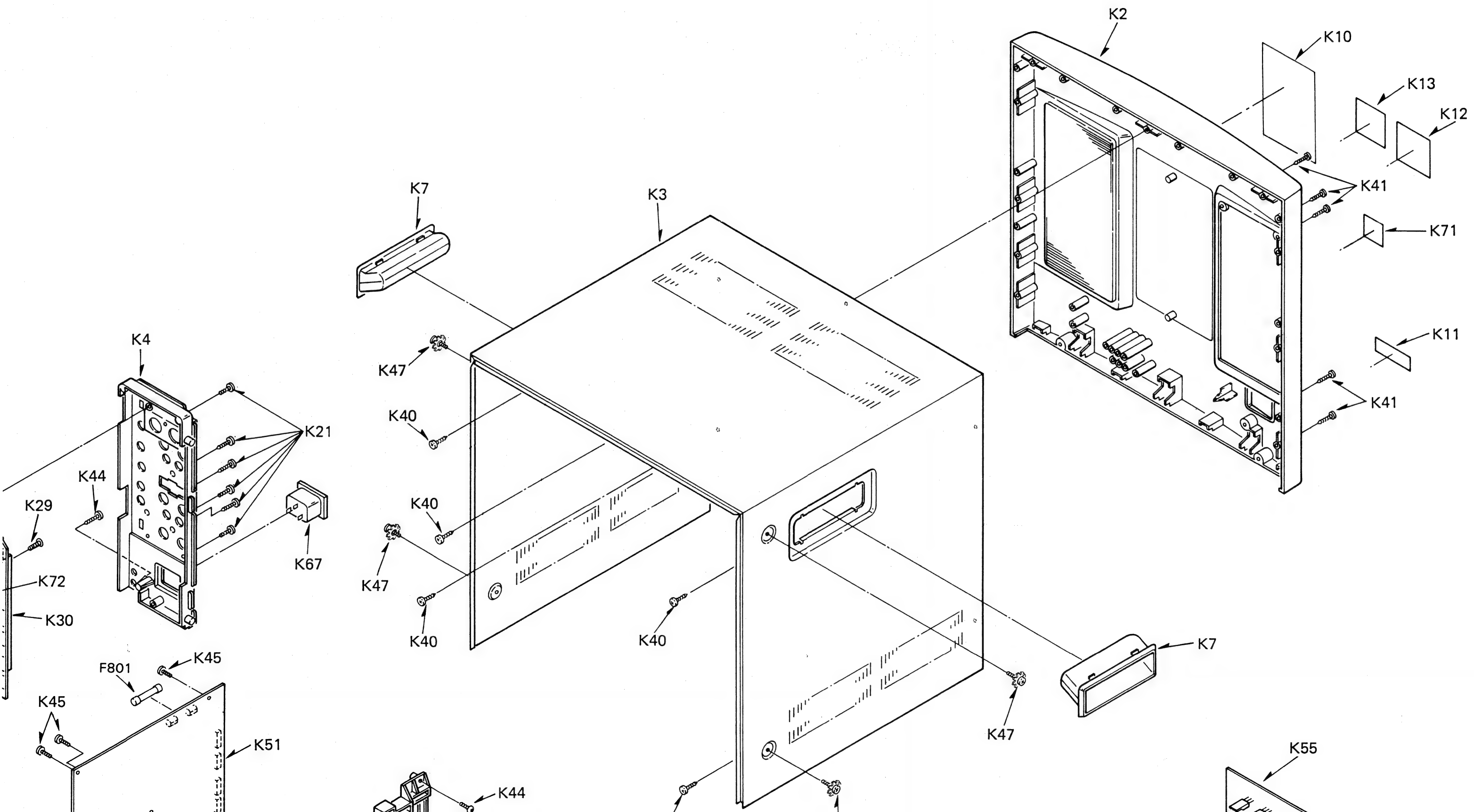


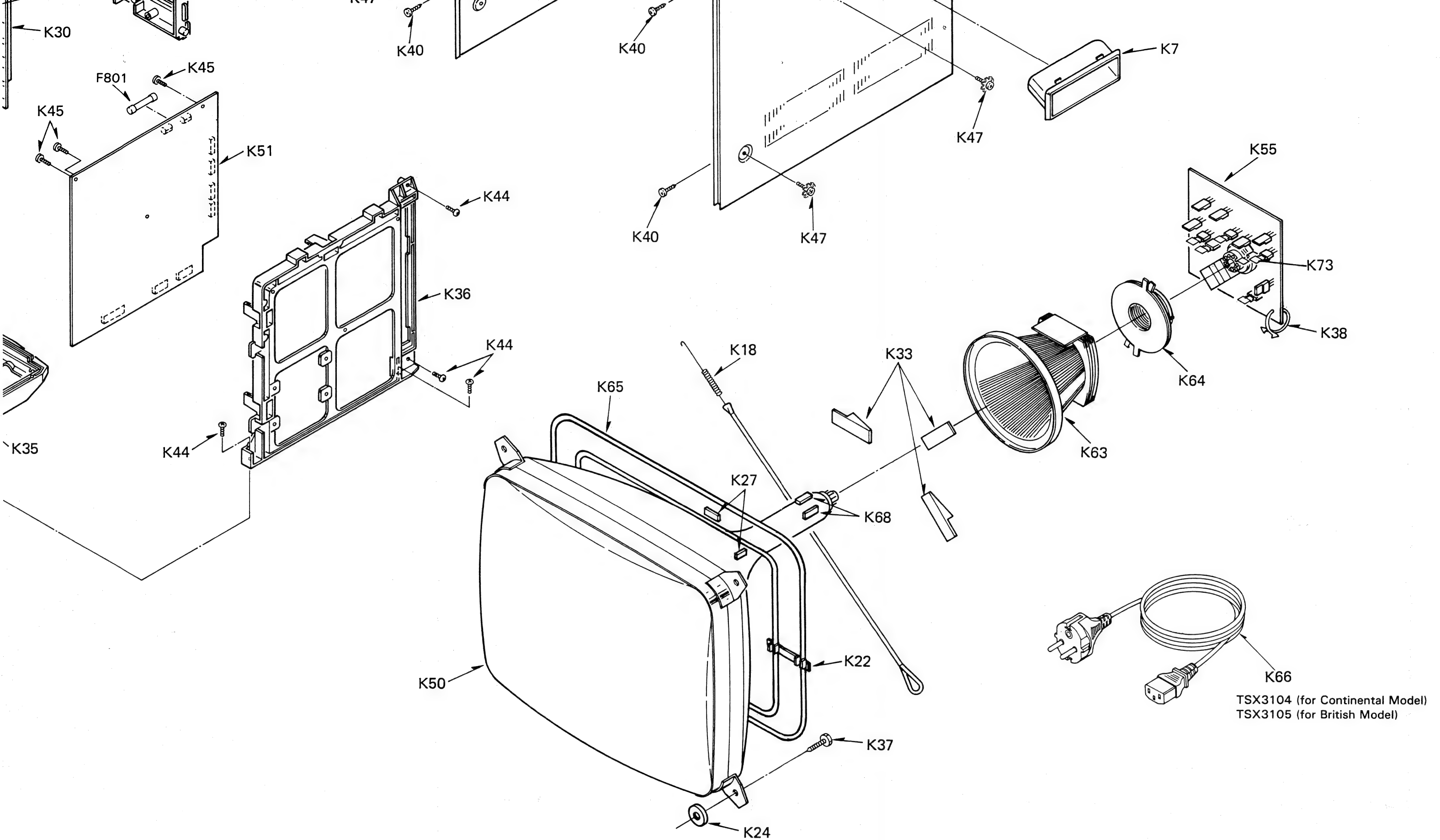
D1-P.W. Board
YNP101901BZ











Replacement Parts List

Important Safety Notice

Components identified by the International symbol Δ have special characteristics important for safety. When replacing any of these components use only manufacture's specified Parts.

Abbreviation of Part Name and Description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W
TYPE
ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide Metal Film	J : $\pm 5\%$
S : Solid	K : $\pm 10\%$
W : Wire Wound	M : $\pm 20\%$

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V
TYPE
ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : ± 0.25 pF
E : Electrolytic	D : ± 0.5 pF
P : Polyester	F : ± 1 pF
PP : Polypropylene	J : $\pm 5\%$
S : Styrol	K : $\pm 10\%$
T : Tantalum	L : $\pm 15\%$
	M : $\pm 20\%$
	P : $\pm 100\%$, -0%
	Z : $\pm 80\%$, -20%

Note: For M of Ref. No., not indicate illustration of it part on "Exploded Views".

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
CABINET & MAIN PARTS			K33	TXFMK01H55	PARMALLOY
K1	TKE1316B01	ESCUTCHEON ASS'Y	K34	TMW13110	FRONT BRACKET
K2	TKU589100	REAR COVER	K35	TMX13101	CHASSIS BRACKET(M)
K3	TKC131127	METAL CABINET	K36	TMX13102	PC BOARD BRACKET
K4	TKP1313851-2	TERMINAL BOARD PANEL	K37	THT1024R	SCREW
K5	TKX137000	BOTTOM CABINET	M9	XTB4+10A	SCREW
M1	TKK139611	CRT BOSS	K39	XTB4+10J	SCREW
K7	TKK69248-7	HANDLE	K40	XTB4+15A	SCREW
K8	TKZ138171-1	CHASSIS BRACKET(R)	K41	XTB4+15AFZ	SCREW
K9	TKZ138172-1	CHASSIS BRACKET(L)	K42	XTV3+10A	SCREW
K12	TBM130599	VR LABEL	K44	XTV3+12A	SCREW
K10	TBM130626-1	MODEL PLATE		XTV3+8JFZ	SCREW
K11	TBM130628	AC LABEL	K45	XTW3+10T	SCREW
K13	TBM130634	FOCUS LABEL	K46	XYA4+EF8	SCREW
K14	TBX1354101	KNOB(TV SYSTEM SELECTOR)	K47	XYA4+EF8FC	SCREW
K15	TBX8750101	KNOB(VR)	K49	XYN3+C8	SCREW
K16	TBX8780300	PUSH BUTTON(BLACK)	Δ K50	M34JEF037X/E	PICTURE TUBE
K17	TBX8780500	POWER BUTTON	K52	TNP101900	PC BOARD W/COMPONENT(C)
K18	TES1208	COIL SPRING	K53	TNP101901BZ	PC BOARD W/COMPONENT(D1)
K19	TMM15404-1	SPACER RING	K54	TNP101902BZ	PC BOARD W/COMPONENT(D2)
M2	TMM15412-1	CLAMPER	K55	TNP101903AB	PC BOARD W/COMPONENT(L)
M3	TMM15423-1	READ CLAMPER(B)	K56	TNP101904	PC BOARD W/COMPONENT(W)
M4	TMM15433	CLAMPER	K57	TNP110144	PC BOARD W/COMPONENT(F)
K22	TMM15434	CLAMPER	K58	TNP110284	PC BOARD W/COMPONENT(G)
K23	TMM15442	HOLDER	K59	TNP110314	PC BOARD W/COMPONENT(E)
K24	TMM15525	RUBBER CUSHION	K60	TNP110315ZB	PC BOARD W/COMPONENT(P)
K25	TMM16452	ANODE CLAMPER	K61	TNP110534	PC BOARD W/COMPONENT(B)
K27	TMM17514	DY WEDGE	K62	EAS7D09A	SPEAKER
M5	TMM6428-1	CLAMPER	Δ K63	TLY26344D	DEFLECTION YOKE
K28	TMM6463	CLAMPER	K64	TLC2061	CONVERGENCE COIL
M6	TMM7468	CLAMPER	Δ K65	TLK859059A	DEGAUSS COIL
M7	TMM76429-1	PURSE LOCK	Δ K66	TSX3104	POWER CORD(BT-H1450Y)
K31	TMM76440-1	CLAMPER	Δ K66	TSX3105	POWER CORD(BT-H1450YG)
M8	TMM81416	CORD BAND(SMALL)			(W/O AC PLUG)
K32	TMK33532	BARRIER(POWER SW)	Δ K67	TJS5A9390	AC SOCKET
			M10	TXAJTA22MJQZ	4P CONNECTOR ASSY(A22-F22)
			M11	TXAJTA35MDL9	2P CONNECTOR ASSY(A35-A36)

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
M12	TXAJTA40MJLZ	3P CONNECTOR ASSY(A40-F40)	IC5307	AN614	INTEGRATED CIRCUIT
M13	TXAJTA51MJLZ	3P CONNECTOR ASSY(A51-A17)	IC5308	AN5862K	INTEGRATED CIRCUIT
M14	TXAJTA8MJLZ	2P/2P CONNECTOR ASSY	IC5309	AN5862K	INTEGRATED CIRCUIT
M15	TXAJTB11MJQZ	3P CONNECTOR ASSY(B11)	IC5310	AN78LO9	INTEGRATED CIRCUIT
M16	TXAJTB19MJQZ	1P CONNECTOR ASSY(A4-B19)	IC5311	AN608P	INTEGRATED CIRCUIT
M17	TXAJTC1MJLZ	2P CONNECTOR ASSY(C1-SP)	IC5401	LM1881N	INTEGRATED CIRCUIT
M18	TXAJTC11MJLZ	10P CONNECTOR ASSY	IC5402	MC14066BCP	INTEGRATED CIRCUIT
M19	TXAJTC12MJLZ	8P CONNECTOR ASSY(C12-A12)	IC5403	TVSBA236B	INTEGRATED CIRCUIT
M20	TXAJTC20MJLZ	4P CONNECTOR ASSY(C20-E20)	IC5404	TVSBA236B	INTEGRATED CIRCUIT
M21	TXAJTC21MJLZ	3P CONNECTOR ASSY(C21-F21)	IC5405	SN74LS86AN	INTEGRATED CIRCUIT
M22	TXAJTC4MJLZ	2P CONNECTOR ASSY(C4-D4)	IC5601	MC14066BCP	INTEGRATED CIRCUIT
M23	TXAJTC9MJLZ	8P CONNECTOR ASSY(C9-B9)	IC5602	MC14053BCP	INTEGRATED CIRCUIT
M24	TXAJTD6MJLZ	3P CONNECTOR ASSY(D6-E25)	IC5603	AN78LO9	INTEGRATED CIRCUIT
M25	TXAJTD7MJLZ	2P CONNECTOR ASSY(D7-E26)	TRANSISTORS		
M26	TXFJTO1DAZ	1P GROUND READ(CRT)	Q351	2SC1685Q	TRANSISTOR
△ F801	XBA2C31TBO	FUSE(3.15A)	Q352	2SC1685Q	TRANSISTOR
K68	TSN85511	MAGNET	Q353	2SC1685Q	TRANSISTOR
M27	TPC1311102	OUTER CARTON	Q354	2SC3942RL	TRANSISTOR
M28	TPD131132	FILLER(UPPER)	Q355	2SC3942RL	TRANSISTOR
M29	TPD132129	FILLER(BOTTOM)	Q356	2SC3942RL	TRANSISTOR
M30	TPD139327	FILLER(FRONT)	Q357	2SC3942RL	TRANSISTOR
M31	TQE6615	SET COVER	Q358	2SC3942RL	TRANSISTOR
M32	XZBT6506	BAG(INSTRUCTION BOOK)	Q359	2SC3942RL	TRANSISTOR
M33	TQB510098	INSTRUCTION BOOK	Q360	2SA1605RL	TRANSISTOR
M34	TQB817002-1	SAFETY SHEET	Q361	2SA1605RL	TRANSISTOR
M35	TQD1712009-1	PASS CARD	Q362	2SA1605RL	TRANSISTOR
M36	TQD62996	S.V.C LIST	Q363	2SA1605RL	TRANSISTOR
M37	TQD6718063-1	WARRANTY CARD	Q364	2SA1605RL	TRANSISTOR
M38	TQF34651	PTB LABEL	Q365	2SA1605RL	TRANSISTOR
K71	TQF37204	SERIAL NO.LABEL	Q401	2SC3311AQ	TRANSISTOR
M39	TQF57221	POWER CORD LABEL (BT-H1450YG)	Q402	UN4211	TRANSISTOR
I.C			Q451	2SC3311AQ	TRANSISTOR
IC201	AN5265	INTEGRATED CIRCUIT	Q453	2SC1383R	TRANSISTOR
IC401	AN5521	INTEGRATED CIRCUIT	Q454	2SA683R	TRANSISTOR
△ IC501	TDA2579A	INTEGRATED CIRCUIT	Q502	2SA1309AQ	TRANSISTOR
△ IC551	TNH11303	CIRCUIT BOARD(HIC)	Q503	2SC3311AQ	TRANSISTOR
IC601	TA7347P	INTEGRATED CIRCUIT	Q504	2SD1264RL	TRANSISTOR
IC602	MC14066BCP	INTEGRATED CIRCUIT	Q505	2SC2653HLB	TRANSISTOR
IC603	TDA4555	INTEGRATED CIRCUIT	Q552	2SD1439PLB	TRANSISTOR
IC605	AN6912	INTEGRATED CIRCUIT	Q601	2SC3311AQ	TRANSISTOR
IC606	AN5613	INTEGRATED CIRCUIT	Q602	2SC3311AQ	TRANSISTOR
IC607	AN5862K	INTEGRATED CIRCUIT	Q603	2SC3311AQ	TRANSISTOR
IC751	AN78M20	INTEGRATED CIRCUIT	Q604	2SC3311AQ	TRANSISTOR
△ IC801	STR61001	INTEGRATED CIRCUIT	Q605	2SC3311AQ	TRANSISTOR
IC802	UPC2412HF	INTEGRATED CIRCUIT	Q606	2SC3311AQ	TRANSISTOR
△ IC804	SE095N	INTEGRATED CIRCUIT	Q607	2SC3311AQ	TRANSISTOR
△ IC806	TLP634GR	INTEGRATED CIRCUIT	Q608	2SC3311AQ	TRANSISTOR
IC1301	TA7347P	INTEGRATED CIRCUIT	Q609	2SC3311AQ	TRANSISTOR
IC1302	TVSTC4066BP	INTEGRATED CIRCUIT	Q610	2SC3311AQ	TRANSISTOR
IC1303	TA7347P	INTEGRATED CIRCUIT	Q612	2SC3311AQ	TRANSISTOR
IC1602	AN5860	INTEGRATED CIRCUIT	Q613	2SC3311AQ	TRANSISTOR
IC3301	CXA1024S	INTEGRATED CIRCUIT	Q614	2SC3311AQ	TRANSISTOR
IC3302	MC14053BCP	INTEGRATED CIRCUIT	Q615	2SC3311AQ	TRANSISTOR
IC3304	AN78M09	INTEGRATED CIRCUIT	Q617	2SC3311AQ	TRANSISTOR
IC5301	AN608P	INTEGRATED CIRCUIT	Q620	2SC3311AQ	TRANSISTOR
IC5302	TA7347P	INTEGRATED CIRCUIT	Q621	UN4212	TRANSISTOR
IC5303	MC14052BCP	INTEGRATED CIRCUIT	Q622	UN4212	TRANSISTOR
IC5304	AN5860	INTEGRATED CIRCUIT	Q754	2SA1309AQ	TRANSISTOR
IC5305	MC14066BCP	INTEGRATED CIRCUIT	Q755	2SD1499QLB	TRANSISTOR
IC5306	AN614	INTEGRATED CIRCUIT	Q806	2SA879	TRANSISTOR
			Q807	2SC3311AQ	TRANSISTOR

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
△ Q810	2SC2497AR	TRANSISTOR	Q5311	2SC3311AQ	TRANSISTOR
△ Q811	2SC3311AQ	TRANSISTOR	Q5312	2SC3311AQ	TRANSISTOR
Q812	2SC3311AQ	TRANSISTOR	Q5313	UN4213	TRANSISTOR
Q1301	2SC3311AQ	TRANSISTOR	Q5314	2SC3311AQ	TRANSISTOR
Q1302	2SC3311AQ	TRANSISTOR	Q5315	2SC3311AQ	TRANSISTOR
Q1303	2SC3311AQ	TRANSISTOR	Q5316	UN4212	TRANSISTOR
Q1304	2SC3311AQ	TRANSISTOR	Q5401	2SC3311AQ	TRANSISTOR
Q1305	2SC3311AQ	TRANSISTOR	Q5402	2SC3311AQ	TRANSISTOR
Q1306	2SC3311AQ	TRANSISTOR	Q5403	2SC3311AQ	TRANSISTOR
Q1308	2SC3311AQ	TRANSISTOR	Q5404	2SA1309AQ	TRANSISTOR
Q1309	UN4212	TRANSISTOR	Q5405	2SC3311AQ	TRANSISTOR
Q1313	2SC3311AQ	TRANSISTOR	Q5406	2SC3311AQ	TRANSISTOR
Q1314	2SC3311AQ	TRANSISTOR	Q5407	2SC3311AQ	TRANSISTOR
Q1318	2SC3311AQ	TRANSISTOR	Q5409	2SC3311AQ	TRANSISTOR
Q1319	2SA1309AQ	TRANSISTOR	Q5410	2SC3311AQ	TRANSISTOR
Q1320	2SC3311AQ	TRANSISTOR	Q5411	UN4213	TRANSISTOR
Q1321	2SA1309AQ	TRANSISTOR	Q5412	2SC3311AQ	TRANSISTOR
Q1322	2SA1309AQ	TRANSISTOR	Q5413	2SC3311AQ	TRANSISTOR
Q1324	2SA1309AQ	TRANSISTOR	Q5414	2SC3311AQ	TRANSISTOR
Q1325	UN4212	TRANSISTOR	Q5415	2SC3311AQ	TRANSISTOR
Q1326	2SC3311AQ	TRANSISTOR	Q5416	2SC3311AQ	TRANSISTOR
Q1327	UN4212	TRANSISTOR	Q5417	2SC3311AQ	TRANSISTOR
Q1601	2SC3311AQ	TRANSISTOR	Q5418	2SC3311AQ	TRANSISTOR
Q1606	2SC3311AQ	TRANSISTOR	Q5420	2SC3311AQ	TRANSISTOR
Q1607	2SA1309AQ	TRANSISTOR	Q5421	2SA1309AQ	TRANSISTOR
Q1608	2SC3311AR	TRANSISTOR	Q5506	UN4212	TRANSISTOR
Q1609	2SC3311AQ	TRANSISTOR	Q5507	UN4212	TRANSISTOR
Q1610	2SC3311AQ	TRANSISTOR	Q5601	2SC3311AQ	TRANSISTOR
Q1611	2SC3311AQ	TRANSISTOR	Q5602	2SC3311AQ	TRANSISTOR
Q1612	2SC3311AQ	TRANSISTOR	Q5603	2SC3311AQ	TRANSISTOR
Q3301	2SC3311AQ	TRANSISTOR	Q5604	2SC3311AQ	TRANSISTOR
Q3302	2SC3311AQ	TRANSISTOR	Q5605	2SC3311AQ	TRANSISTOR
Q3304	2SC3311AQ	TRANSISTOR	Q5606	2SC3311AQ	TRANSISTOR
Q3305	2SC3311AQ	TRANSISTOR	Q5608	2SC3311AQ	TRANSISTOR
Q3310	UN4212	TRANSISTOR	Q5609	2SC3311AQ	TRANSISTOR
Q3312	UN4212	TRANSISTOR	Q5611	2SC3311AQ	TRANSISTOR
Q3313	UN4212	TRANSISTOR	Q5612	2SA1309AQ	TRANSISTOR
Q3314	2SC3311AQ	TRANSISTOR	Q5750	2SC3311AQ	TRANSISTOR
Q3315	2SC3311AQ	TRANSISTOR	Q5751	2SC3311AQ	TRANSISTOR
Q3316	2SA1309AQ	TRANSISTOR	Q5752	2SC3311AQ	TRANSISTOR
Q3317	UN4212	TRANSISTOR	Q5753	2SC3311AQ	TRANSISTOR
Q3320	UN4212	TRANSISTOR	Q5754	2SC3311AQ	TRANSISTOR
Q4201	2SA1309AQ	TRANSISTOR	Q5755	2SC3311AQ	TRANSISTOR
Q4202	2SC3311AQ	TRANSISTOR	Q5756	2SC3311AQ	TRANSISTOR
Q4301	2SC3311AQ	TRANSISTOR	Q5757	UN4212	TRANSISTOR
Q4302	2SC3311AQ	TRANSISTOR	DIODES		
Q5100	2SC3311AQ	TRANSISTOR	D351	MA167	DIODE
Q5101	UN4111	TRANSISTOR	D352	MA167	DIODE
Q5201	2SC3311AQ	TRANSISTOR	D353	MA167	DIODE
Q5202	2SA1309AQ	TRANSISTOR	D354	MA167	DIODE
Q5203	2SC3311AQ	TRANSISTOR	D355	MA167	DIODE
Q5300	2SC3311AQ	TRANSISTOR	D356	MA167	DIODE
Q5301	2SC3311AQ	TRANSISTOR	D357	MA165	DIODE
Q5302	2SC3311AQ	TRANSISTOR	D358	MA165	DIODE
Q5303	2SC3311AQ	TRANSISTOR	D359	MA165	DIODE
Q5304	2SC3311AQ	TRANSISTOR	D360	EU01N	DIODE
Q5305	2SC3311AQ	TRANSISTOR	D361	EU01N	DIODE
Q5306	2SC3311AQ	TRANSISTOR	D362	EU01N	DIODE
Q5307	2SC3311AQ	TRANSISTOR	D401	MA29A	DIODE
Q5308	2SC3311AQ	TRANSISTOR	D402	MA4075H	DIODE
Q5309	2SC3311AQ	TRANSISTOR	D451	ERA1502	DIODE
Q5310	UN4213	TRANSISTOR			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
D455	MA165	DIODE	D1605	MA4062M	DIODE
D456	MA165	DIODE	D1606	MA165	DIODE
D457	MA1043M	DIODE	D1607	MA165	DIODE
D460	MA4120M	DIODE	D3303	MA4091L	DIODE
			D3304	MA4091L	DIODE
D462	MA165	DIODE			
D502	MA165	DIODE	D3305	MA165	DIODE
D503	MA4051M	DIODE	D3306	MA165	DIODE
D505	MA165	DIODE	D3308	MA4091H	DIODE
D507	MA165	DIODE	D3309	MA4091H	DIODE
			D3310	MA4091H	DIODE
△ D551	TVSEU2	DIODE			
△ D552	ERD07-15	DIODE	D3311	MA165	DIODE
△ D553	TVSRU2AM	DIODE	D3312	MA165	DIODE
△ D554	TVSEU2	DIODE	D3313	MA165	DIODE
D556	MA165	DIODE	D3314	MA165	DIODE
			D3315	MA165	DIODE
△ D558	ERA22-04	DIODE			
D559	MA4360L	DIODE	D3316	MA165	DIODE
D562	MA167	DIODE	D3317	MA165	DIODE
D563	MA29TB	DIODE	D3318	MA165	DIODE
D564	MA29TB	DIODE	D3319	MA4091L	DIODE
			D3323	MA165	DIODE
D565	MA167	DIODE			
D607	MA4047M	DIODE	D3324	MA4100L	DIODE
D608	DAN401	DIODE	D3325	MA4062M	DIODE
D609	MA165	DIODE	D3326	MA4100L	DIODE
D610	MA165	DIODE	D3327	MA165	DIODE
			D3338	MA165	DIODE
D613	MA165	DIODE			
D614	MA165	DIODE	D3339	MA165	DIODE
D615	MA165	DIODE	D3341	MA4056M	DIODE
D616	MA165	DIODE	D3342	MA165	DIODE
D753	MA29TB	DIODE	D3343	MA165	DIODE
			D3345	MA165	DIODE
△ D801	RBV608	DIODE			
△ D805	TVSQB118	DIODE	D3346	MA165	DIODE
△ D806	AU01Z	DIODE	D3347	MA165	DIODE
△ D807	TVSES1	DIODE	D3350	MA165	DIODE
△ D809	ERA22-02	DIODE	D3351	MA165	DIODE
			D3352	MA165	DIODE
△ D810	ERPW5BON120D	POSISTOR			
△ D811	ERD31-04	DIODE	D3353	MA4082M	DIODE
△ D812	RL4Z	DIODE	D3364	MA165	DIODE
△ D813	ERD31-04	DIODE	D3365	MA165	DIODE
△ D815	TVSAGO1	DIODE	D3366	MA165	DIODE
			D3367	MA165	DIODE
△ D816	TVSSR2KN	DIODE			
D828	ASO1	DIODE	D3368	MA1062M	DIODE
△ D836	MA1062H	DIODE	D3369	MA4062M	DIODE
△ D840	MA29TA	DIODE	D3370	MA4062M	DIODE
D842	MA4036M	DIODE	D4301	OA90AG	DIODE
			D4302	MA165	DIODE
D843	MA4330H	DIODE			
D845	MA182	DIODE	D4303	MA165	DIODE
△ D850	TVSSR2KN	DIODE	D4304	MA165	DIODE
D1304	MA165	DIODE	D4305	MA165	DIODE
D1305	MA165	DIODE	D4306	MA165	DIODE
D1312	MA29TA	DIODE	D4307	MA4130H	DIODE
D1314	MA165	DIODE	D5106	LN31GCPUH	DIODE(LED)
D1315	MA165	DIODE	D5107	LN31GCPUH	DIODE(LED)
D1317	MA4075M	DIODE	D5108	LN31GCPUH	DIODE(LED)
D1320	MA165	DIODE	D5109	LN31GCPUH	DIODE(LED)
D1321	MA165	DIODE	D5110	LN31GCPUH	DIODE(LED)
D1322	MA165	DIODE	D5114	MA165	DIODE
D1323	MA165	DIODE	D5115	MA165	DIODE
D1326	MA165	DIODE	D5116	MA165	DIODE
D1330	MA4051M	DIODE	D5117	MA165	DIODE
D1601	MA165	DIODE	D5118	MA165	DIODE
D1603	MA165	DIODE	D5201	MA4100M	DIODE
D1604	MA165	DIODE	D5202	MA165	DIODE

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
D5203	MA 165	DIODE	L555	TSK1002-1	FERRITE CORE
D5204	MA 165	DIODE	△ L557	TSC925-4	FERRITE CORE
D5207	MA 165	DIODE	△ L560	TLP408	CHOKE COIL
D5208	MA 165	DIODE	L601	TLK61008-1	DEGAUSS COIL
D5209	MA 165	DIODE	L602	TSC925-4	FERRITE CORE
D5210	MA 165	DIODE	L603	TLT390K991K	PEAKING COIL
D5211	MA 165	DIODE	L604	TLT056K991	PEAKING COIL
D5212	MA 165	DIODE	L605	TLT150K991K	PEAKING COIL
D5213	MA 165	DIODE	L606	TLT270K991K	PEAKING COIL
D5301	MA 165	DIODE	L608	EIK7ES007B	VIF COIL
D5302	MA4091M	DIODE	L611	TLT056K991	PEAKING COIL
D5303	MA 165	DIODE	L615	EIK7EGO12B	VIF COIL
D5304	MA 165	DIODE	L616	TLK158066	DEGAUSS COIL
D5305	MA 165	DIODE	L617	EIK7EGO13B	VIF COIL
D5306	MA 165	DIODE	L618	EIK7EGO13B	VIF COIL
D5308	MA 165	DIODE	L619	TLT100K991K	PEAKING COIL
D5309	MA 165	DIODE	L701	TSC925-4	FERRITE CORE
D5310	MA 165	DIODE	△ L801	ELF18D650H	LINE FILTER
D5311	MA 165	DIODE	△ L802	ELF18D650H	LINE FILTER
D5314	MA 165	DIODE	△ L803	TSK1002	FERRITE CORE
D5316	MA 165	DIODE	△ L806	TSK1002	FERRITE CORE
D5317	MA 165	DIODE	△ L807	TSK1002	FERRITE CORE
D5320	MA 165	DIODE	△ L810	TSK1002	FERRITE CORE
D5321	MA700	DIODE	L812	TLP15523E	TRANS.
D5322	MA700	DIODE	△ L815	TSK1002	FERRITE CORE
D5323	MA4030M	DIODE	L819	TLP15523E	TRANS.
D5324	MA4030M	DIODE	L1301	ELT10Z327	DELAY LINE
D5325	MA4130H	DIODE	L1308	TLT560K991K	PEAKING COIL
D5326	MA700	DIODE	L1309	TLT150K991K	PEAKING COIL
D5330	MA700	DIODE	L1310	ELT10Z397	COIL
D5402	MA700	DIODE	L1311	TLT220K991K	PEAKING COIL
D5403	OA90AM	DIODE	L1602	TLT330K991K	PEAKING COIL
D5404	MA4030M	DIODE	L1603	TLT220K991K	PEAKING COIL
D5405	MA4047H	DIODE	L1604	TLT542K991K	PEAKING COIL
D5406	MA 165	DIODE	L5302	TLU8R2K186	PEAKING COIL
D5407	MA700	DIODE	L5304	TLK158066	DEGAUSS COIL
D5408	MA 165	DIODE	L5305	TLU8R2K186	PEAKING COIL
D5410	MA 165	DIODE	L5306	TLU180J186	PEAKING COIL
D5411	MA 165	DIODE	L5307	TLK158066	DEGAUSS COIL
D5562	MA 165	DIODE	L5308	TLK61008-1	DEGAUSS COIL
D5601	MA4130H	DIODE	L5311	EFDEN645A11G	DELAY LINE
D5602	MA4130H	DIODE	L5312	EFDRM425A13A	CERAMIC FILTER
D5604	MA4082H	DIODE	L5313	EFDRM425B85A	CERAMIC FILTER
D5701	MA 165	DIODE	L5314	TLT068K991K	PEAKING COIL
D5702	MA 165	DIODE	L5316	TLT120K991K	PEAKING COIL
D5703	MA29WA	DIODE	L5317	EXCELD35C	LC COMBINATION
COIL & TRANSFORMERS			LC601	EFDMA645B85F	DELAY LINE
L201	EXCELD35C	LC COMBINATION	LC1301	TLK66009-1	DEGAUSS COIL
L351	TLT470K991K	PEAKING COIL	LC1303	TLK66056-1	DEGAUSS COIL
L352	TLT470K991K	PEAKING COIL	LC1304	TLK66009-1	DEGAUSS COIL
L353	TLT470K991K	PEAKING COIL	LC1305	EFC44R43MB3	CERAMIC FILTER
L354	TLT390K991K	PEAKING COIL	T501	ETH19Y70AY	TRANS.
L355	TLT390K991K	PEAKING COIL	△ T551	TLF14303F	FLYBACK TRANS
L356	TLT390K991K	PEAKING COIL	△ T801	ETS49K617V	TRANS.
L402	ELC08D058	CHOKE COIL	CAPACITORS		
L501	TSC925-4	FERRITE CORE	C201	ECEA1HNO10S	E 1UF 50V
L551	TLH15907	COIL	C202	ECQB1H103JF	P 0.01UF J 50V
△ L552	ELH5L726	COIL	C203	ECKF1H103ZF	C 0.01UF Z 50V
△ L553	TLH13711	CHOKE COIL	C204	ECEA1HGE2R2	E 2.2UF 50V
L554	TSK1002	FERRITE CORE	C205	ECQV1H124JZ	P 0.12UF J 50V
			C206	ECEA1CGE330	E 33UF 16V

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C207	ECEA1CN100S	E 10UF 16V	C563	ECEA1VU221	E 220UF 35V
C209	ECEA1CU471	E 470UF 16V	C564	ECEA1CGE470	E 47UF 16V
C210	ECEA1EU102	E 1000UF 25V	C569	ECEA2CN3R3S	E 3.3UF 160V
C212	ECEA1CU471	E 470UF 16V	C571	ECKD2H102KB2	C 1000PF K 500V
C215	ECQV1H823JZ	P 0.082UF J 50V	C572	ECEA2EGE100	E 10UF 250V
C351	ECCF1H331J	C 330PF J 50V	C573	ECKD2H103ZU	C 0.01UF Z 500V
C352	ECCF1H471J	C 470PF J 50V	C574	ECEA2EGE330	E 33UF 250V
C353	ECCF1H331J	C 330PF J 50V	C600	ECEA1CU102	E 1000UF 16V
C354	ECKF1H103ZF	C 0.01UF Z 50V	C602	ECQV1H473JZ	P 0.047UF J 50V
C355	ECKF1H103ZF	C 0.01UF Z 50V	C603	ECQV1H473JZ	P 0.047UF J 50V
C356	ECKF1H103ZF	C 0.01UF Z 50V	C604	ECQV1H473JZ	P 0.047UF J 50V
C357	ECCF1H101J	C 100PF J 50V	C605	ECQB1H103JF	P 0.01UF J 50V
C358	ECCF1H101J	C 100PF J 50V	C606	ECQB1H103JF	P 0.01UF J 50V
C359	ECCF1H101J	C 100PF J 50V	C607	ECQB1H103JF	P 0.01UF J 50V
△ C360	ECEA2EG4R7S	E 4.7UF 250V	C610	ECCF1H121JC	C 120PF J 50V
C361	ECEA1CGE100	E 10UF 16V	C611	ECQB1H103JF	P 0.01UF J 50V
C363	ECKD3D102KBN	C 1000PF K 2KV	C612	ECEA1HN2R2S	E 2.2UF 50V
C365	ECKD2H103PU	C 0.01UF P 500V	C613	ECKF1H103ZF	C 0.01UF Z 50V
C401	ECQV1H474JZ	P 0.47UF J 50V	C614	ECKF1H103ZF	C 0.01UF Z 50V
C451	ECQV1H474JZ	P 0.47UF J 50V	C615	ECCF1H101JC	C 100PF J 50V
C452	ECEA1HFS4R7	E 4.7UF 50V	C616	ECCF1H470JC	C 47PF J 50V
C453	ECQB1H223JF	P 0.022UF J 50V	C617	ECQB1H103JF	P 0.01UF J 50V
C454	ECQV1H394JZ	P 0.39UF J 50V	C618	ECCF1H101J	C 100PF J 50V
C455	ECQV1H154JZ	P 0.15UF J 50V	C619	ECEA1CKN330	E 33UF 16V
C456	ECEA1EU222	E 2200UF 25V	C620	ECEA1CKN330	E 33UF 16V
C457	ECQV1H274JZ	P 0.27UF J 50V	C621	ECCF1H300JC	C 30PF J 50V
C458	ECKD2H182KB2	C 1800PF K 500V	C622	ECCF1H221JC	C 220PF J 50V
C459	ECQB1H473JF	P 0.047UF J 50V	C623	ECQB1H103JF	P 0.01UF J 50V
C460	ECQV1H104JZ	P 0.1UF J 50V	C626	ECEA1CKN330	E 33UF 16V
△ C461	ECEA1VGE471	E 470UF 35V	C627	ECEA1CKN330	E 33UF 16V
△ C462	ECEA1VU102	E 1000UF 35V	C628	ECQB1H103JF	P 0.01UF J 50V
C463	ECEA1CN100S	E 10UF 16V	C632	ECKF1H102KB	C 1000PF K 50V
C464	ECEA1VU470	E 47UF 35V	C633	ECQB1H223JF	P 0.022UF J 50V
C501	ECEA1HU010	E 1UF 50V	C634	TCRHA030E11	TRIMMER CAPACITOR
C503	ECQV1H334JZ	P 0.33UF J 50V	C636	ECQV1H334JZ	P 0.33UF J 50V
C504	ECQV1H334JZ	P 0.33UF J 50V	C637	TCRHA030E11	TRIMMER CAPACITOR
C505	ECQB1H103JF	C 0.01UF J 50V	C638	ECQV1H473JZ	P 0.047UF J 50V
C506	ECQV1H104JZ	P 0.1UF J 50V	C639	ECEA1HNO10S	E 1UF 50V
C507	ECEA1CU220	E 22UF 16V	C640	ECQB1H152JF	P 1500PF J 50V
C508	ECQV1H473JZ	P 0.047UF J 50V	C642	ECQB1H223JF	P 0.022UF J 50V
C509	ECEA1HU010	E 1UF 50V	C643	ECQB1H223JF	P 0.022UF J 50V
C510	ECEA1VU4R7	E 4.7UF 35V	C644	ECKF1H103ZF	C 0.01UF Z 50V
C511	ECQV1H154JZ	P 0.15UF J 50V	C645	ECKF1H103ZF	C 0.01UF Z 50V
C512	ECQP1H272JZ	PP 2700PF J 50V	C646	ECCF1H220J	C 22PF J 50V
△ C515	ECEA1VU470	E 47UF 35V	C647	ECCF1H680J	C 68PF J 50V
C516	ECEA1CU100	E 10UF 16V	C648	ECCF1H221J	C 220PF J 50V
C517	ECEA1EGE222	E 2200UF 25V	C649	ECCF1H220J	C 22PF J 50V
C518	ECQV1H824JZ	P 0.82UF J 50V	C650	ECCF1H680J	C 68PF J 50V
C520	ECEA1CU470	E 47UF 16V	C651	ECCF1H221J	C 220PF J 50V
C522	ECQV1H333JZ	P 0.033UF J 50V	C652	ECCF1H121JC	C 120PF J 50V
C525	ECEA1CU331	E 330UF 16V	C653	ECCF1H121JC	C 120PF J 50V
C530	ECQB1H472JF	P 4700PF J 50V	C655	ECEA1CU220	E 22UF 16V
C550	ECQB1H102JF	P 1000PF J 50V	C656	EXFP4103ZW	CR COMBINATION
C551	ECKD3A821JBN	C 820PF J 1KV	C661	ECQV1H224JZ	P 0.22UF J 50V
△ C553	ECKD3D152JBN	C 1500PF J 2KV	C666	ECEA1CU470	E 47UF 16V
△ C554	ECQV1H563JZ	P 0.056UF J 50V	C667	ECEA1CN220S	E 22UF 16V
△ C555	ECKD2H222KB2	C 2200PF K 500V	C668	ECCF1H100DC	C 10PF D 50V
△ C557	ECWF2H824JN	PP 0.82UF J 500V	C669	ECEA1ASN330	E 33UF 10V
△ C558	ECWH12H562JS	PP 5600PF J 1.2KV	C670	ECEA1ASN330	E 33UF 10V
△ C559	ECKD3D182JBN	C 1800PF J 2KV	C671	ECEA1ASN330	E 33UF 10V
△ C560	ECQM4562JZ	P 5600PF J 400V	C673	ECEA1CN100S	E 10UF 16V
△ C561	ECQM4472JZ	P 4700PF J 400V	C675	ECCF1H121JC	C 120PF J 50V
△ C562	ECKD3D222JBN	C 2200PF J 2KV			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C679	ECEA1HGNO10	E 1UF 50V	C1319	ECEA1CN470S	E 47UF 16V
C680	ECEA1HGNO10	E 1UF 50V	C1322	ECEA1CU220	E 22UF 16V
C681	ECEA1HGNO10	E 1UF 50V	C1339	ECKF1H103ZF	C 0.01UF Z 50V
C682	ECEA1HU010	E 1UF 50V	C1342	ECCF1H470JC	C 47PF J 50V
C687	ECEA1CU100	E 10UF 16V	C1609	ECEA1CU330	E 33UF 16V
C692	ECEA1CU330	E 33UF 16V	C1610	ECKF1H103ZF	C 0.01UF Z 50V
C693	ECEA1CU101	E 100UF 16V	C1611	ECKF1H103ZF	C 0.01UF Z 50V
C695	ECEA1CU102	E 1000UF 16V	C1612	ECCF1H181JC	C 180PF J 50V
C696	ECEA1CU470	E 47UF 16V	C1613	ECEA1HN2R2S	E 2.2UF 50V
C697	ECEA1CU221	E 220UF 16V	C1614	ECCF1H180JC	C 18PF J 50V
C757	ECEA35W3R5Z	E 3.5UF 35V	C1620	ECCF1H101JC	C 100PF J 50V
△ C802	ECKD2H472PU	C 4700PF P 500V	C1623	ECEA1HNR22S	E 0.22UF 50V
△ C804	ECKD2H472PU	C 4700PF P 500V	C1624	ECEA1HUR22	E 0.22UF 50V
△ C805	ECKD2H472PU	C 4700PF P 500V	C1627	ECEA1CU101	E 100UF 16V
△ C806	ECOS26G221N	E 220UF 400V	C1629	ECQV1H334JZ	P 0.33UF J 50V
△ C807	ECEA1CGE470	E 47UF 16V	C1631	ECEA1HUOR1	E 0.1UF 50V
△ C809	ECKD3D391JBN	C 390PF J 2KV	C1632	ECQB1H152JF	P 1500PF J 50V
△ C811	ECKD2H391KB2	C 390PF K 500V	C1633	ECEA1HU010	E 1UF 50V
△ C813	ECQE2104KF	P 0.1UF K 200V	C3301	ECQB1H103JF	P 0.01UF J 50V
△ C814	ECKD3D471JBN	C 470PF J 2KV	C3302	ECKF1H103ZF	C 0.01UF Z 50V
△ C815	ECQV1H333JZ	P 0.033UF J 50V	C3304	ECEA1HKNO10	E 1UF 50V
△ C818	ECES2CG221	E 220UF 160V	C3305	ECEA1HNO10S	E 1UF 50V
C819	ECKD2H471KB5	C 470PF K 500V	C3306	ECEA1HN2R2S	E 2.2UF 50V
C820	ECKD2H391KB2	C 390PF K 500V	C3313	ECKF1H103ZF	C 0.01UF Z 50V
△ C821	ECEA1EGE471	E 470UF 25V	C3314	ECKF1H103ZF	C 0.01UF Z 50V
C824	ECKD2H391KB2	C 390PF K 500V	C3315	ECEA1HNR22S	E 0.22UF 50V
△ C825	ECEA1VGE331	E 330UF 35V	C3316	ECEA1HNR22S	E 0.22UF 50V
△ C826	ECEA1EF471	E 470UF 25V	C3317	ECEA1HNR22S	E 0.22UF 50V
△ C829	ECKDNS102MB	C 1000PF M	C3319	ECKF1H103ZF	C 0.01UF Z 50V
C830	ECEA1CGE331	E 330UF 16V	C3322	ECEA1CU470	E 47UF 16V
△ C833	ECKD2H103ZU	C 0.01UF Z 500V	C3323	ECEA1CU100	E 10UF 16V
△ C835	ECKD3D391JBN	C 390PF J 2KV	C3324	EXFP4472ZW	CR COMBINATION
△ C837	ECQM2682JZ	P 6800PF J 200V	C3327	ECKF1H103ZF	C 0.01UF Z 50V
△ C844	ECEA1EGE102	E 1000UF 25V	C3328	ECEA1CU330	E 33UF 16V
△ C845	ECQV1H273JZ	P 0.027UF J 50V	C3332	ECEA1CKN220	E 22UF 16V
C847	ECQV1H823JZ	P 0.082PF J 50V	C3333	ECKF1H103ZF	C 0.01UF Z 50V
△ C849	ECKDNS471MB	C 470PF M	C3334	ECKF1H103ZF	C 0.01UF Z 50V
△ C852	ECKF1H681KB	C 680PF K 50V	C3335	ECKF1H103ZF	C 0.01UF Z 50V
C860	ECEA0JU101	E 100UF 6.3V	C3337	ECEA1CGE220	E 22UF 16V
C861	ECEA1VGE4R7	E 4.7UF 35V	C3338	ECKF1H103ZF	C 0.01UF Z 50V
△ C862	ECEA160V33Z	E 33UF 160V	C3339	ECEA1CU101	E 100UF 16V
△ C870	ECEA1VU471	E 470UF 35V	C3340	ECEA1CGE470	E 47UF 16V
C871	ECEA1CU470	E 47UF 16V	C3341	ECEA1CGE330	E 33UF 16V
C872	ECQV1H124JZ	P 0.12UF J 50V	C3343	ECKF1H103ZF	C 0.01UF Z 50V
△ C894	ECQU2A224MN	PP 0.22UF M 250V	C3344	ECKF1H103ZF	C 0.01UF Z 50V
△ C895	ECKDNS332ME	C 3300PF M	C3348	ECEA1HKNO10	E 1UF 50V
△ C896	ECKDNS332ME	C 3300PF M	C3349	ECQB1H123JF	P 0.012UF J 50V
△ C897	ECQU2A104MN	PP 0.1UF M 250V	C3350	ECQB1H473JF	P 0.047UF J 50V
△ C898	ECKDNS332ME	C 3300PF M	C3351	ECQB1H473JF	P 0.047UF J 50V
C1301	ECEA1CKN330	E 33UF 16V	C3353	ECQB1H473JF	P 0.047UF J 50V
C1302	ECEA1CKN330	E 33UF 16V	C3354	ECCF1H101J	C 100PF J 50V
C1303	ECCF1H680JC	C 68PF J 50V	C3361	ECCF1H560J	C 56PF J 50V
C1304	ECCF1H680JC	C 68PF J 50V	C3362	ECEA1CU470	E 47UF 16V
C1305	ECEA1AKN470	E 47UF 10V	C3365	ECKF1H103ZF	C 0.01UF Z 50V
C1306	ECQB1H103JF	P 0.01UF J 50V	C4301	ECEA1CKS220	E 22UF 16V
C1307	ECCF1H101JC	C 100PF J 50V	C4302	ECKF1H103ZF	C 0.01UF Z 50V
C1308	ECRHA090N41	TRIMMER CAPACITOR	C4303	ECKF1H103ZF	C 0.01UF Z 50V
C1311	ECEA1AKN470	E 47UF 10V	C5101	ECEA1CKS100	E 10UF 16V
C1312	ECEA1CU470	E 47UF 16V	C5102	ECEA1CKS100	E 10UF 16V
C1314	ECEA1HU010	E 1UF 50V	C5103	ECEA1CKS100	E 10UF 16V
C1316	ECEA1CU470	E 47UF 16V	C5104	ECEA1CKS100	E 10UF 16V
C1317	ECEA1CU470	E 47UF 16V	C5201	ECEA1CU100	E 10UF 16V
C1318	ECEA1CU470	E 47UF 16V			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
C5202	ECEA1CU100	E 10UF 16V	C5427	ECKF1H103ZF	C 0.01UF Z 50V
C5203	ECEA1CU100	E 10UF 16V	C5428	ECCF1H102J	C 1000PF J 50V
C5204	ECEA1CU100	E 10UF 16V	C5429	ECEA1CU220	E 22UF 16V
C5205	ECEA1HU010	E 1UF 50V	C5430	ECEA1CU220	E 22UF 16V
C5206	ECEA1HU010	E 1UF 50V	C5494	ECQV1H334JZ	P 0.33UF J 50V
C5207	ECEA1CN330S	E 33UF 16V	C5601	ECEA1CU470	E 47UF 16V
C5208	ECEA1CU100	E 10UF 16V	C5602	ECEA1CU470	E 47UF 16V
C5301	ECEA1CN220S	E 22UF 16V	C5603	ECEA1CU470	E 47UF 16V
C5302	ECEA1CN100S	E 10UF 16V	C5604	ECEA1CU331	E 330UF 16V
C5303	ECEA1CGE100	E 10UF 16V	C5605	ECKF1H103ZF	C 0.01UF Z 50V
C5304	ECEA1CU100	E 10UF 16V	C5606	ECEA1CU100	E 10UF 16V
C5305	ECKF1H102KB	C 1000PF K 50V	C5607	ECEA1CU470	E 47UF 16V
C5306	ECEA1CN220S	E 22UF 16V	C5608	ECKF1H103ZF	C 0.01UF Z 50V
C5307	ECEA1CN220S	E 22UF 16V	C5609	ECEA1CU470	E 47UF 16V
C5308	ECEA1CN220S	E 22UF 16V	C5610	ECEA1CU101	E 100UF 16V
C5310	ECEA1CU100	E 10UF 16V	C5611	ECKF1H103ZF	C 0.01UF Z 50V
C5312	ECEA1HNO10S	E 1UF 50V	C5750	ECEA1HGE330	E 33UF 50V
C5314	ECEA1HNO10S	E 1UF 50V	C5751	ECEA1EN220S	E 22UF 25V
C5316	ECQV1H473JZ	P 0.047UF J 50V	C5752	ECEA1EN220S	E 22UF 25V
C5317	ECQV1H473JZ	P 0.047UF J 50V	C5753	ECQV1H823JZ	P 0.082UF J 50V
C5318	ECQV1H473JZ	P 0.047UF J 50V	C5754	ECQV1H823JZ	P 0.082UF J 50V
C5319	ECEA1HU010	E 1UF 50V	C5755	ECEA1VU470	E 47UF 35V
C5320	ECEA1HU010	E 1UF 50V	C5756	ECEA1EU102	E 1000UF 25V
C5321	ECEA1CU100	E 10UF 16V	C5757	ECEA1VU100	E 10UF 35V
C5322	ECEA1CU330	E 33UF 16V	C5764	ECKF1H103ZF	C 0.01UF Z 50V
C5323	ECKF1H103ZF	C 0.01UF Z 50V	C5766	ECQV1H474JZ	P 0.47UF J 50V
C5324	ECEA1HU2R2	E 2.2UF 50V	C5767	ECQB1H472JF	P 4700PF J 50V
C5325	ECQV1H473JZ	P 0.047UF J 50V	C5768	ECQV1H823JZ	P 0.082UF J 50V
C5326	ECQV1H473JZ	P 0.047UF J 50V	RESISTORS		
C5327	ECEA1CU100	E 10UF 16V	R201	ERDS2TJ103	C 10K OHM J 1/4W
C5328	ECQV1H334JZ	P 0.33UF J 50V	R202	ERDS2TJ152	C 1.5K OHM J 1/4W
C5329	ECEA1HGE010	E 1UF 50V	R203	ERDS2TJ103	C 10K OHM J 1/4W
C5330	ECKF1H103ZF	C 0.01UF Z 50V	R204	ERDS2TJ4R7	C 4.7 OHM J 1/4W
C5331	ECQV1H473JZ	P 0.047UF J 50V	R205	ERDS2TJ102	C 1K OHM J 1/4W
C5333	ECQV1H473JZ	P 0.047UF J 50V	R207	ERD25FJ221K	C 220 OHM J 1/4W
C5334	ECQV1H473JZ	P 0.047UF J 50V	R209	ERQ2CJP150S	F 15 OHM J 2W
C5335	ECQV1H473JZ	P 0.047UF J 50V	R351	ERDS2TJ101	C 100 OHM J 1/4W
C5337	ECEA1CGE330	E 33UF 16V	R352	ERDS2TJ101	C 100 OHM J 1/4W
C5338	ECKF1H103ZF	C 0.01UF Z 50V	R353	ERDS2TJ101	C 100 OHM J 1/4W
C5339	ECQV1H473JZ	P 0.047UF J 50V	R354	ERDS2TJ102	C 1K OHM J 1/4W
C5340	ECQV1H473JZ	P 0.047UF J 50V	R355	ERDS2TJ102	C 1K OHM J 1/4W
C5342	ECQV1H334JZ	P 0.33UF J 50V	R356	ERDS2TJ102	C 1K OHM J 1/4W
C5344	ECKF1H103ZF	C 0.01UF Z 50V	R357	ERDS2TJ151	C 150 OHM J 1/4W
C5345	ECKF1H103ZF	C 0.01UF Z 50V	R358	ERDS2TJ151	C 150 OHM J 1/4W
C5346	ECKF1H103ZF	C 0.01UF Z 50V	R359	ERDS2TJ151	C 150 OHM J 1/4W
C5357	ECEA1CN100S	E 10UF 16V	R360	ERDS2TJ270	C 27 OHM J 1/4W
C5361	ECCF1H391J	C 390PF J 50V	R361	ERDS2TJ220	C 22 OHM J 1/4W
C5402	ECEA1HNR22S	E 0.22UF 50V	R362	ERDS2TJ330	C 33 OHM J 1/4W
C5404	ECCF1H221J	C 220PF J 50V	R363	ERDS2TJ101	C 100 OHM J 1/4W
C5406	ECQV1H333JZ	P 0.033UF J 50V	R364	ERDS2TJ101	C 100 OHM J 1/4W
C5409	ECCF1H101J	C 100PF J 50V	R365	ERDS2TJ101	C 100 OHM J 1/4W
C5410	ECQV1H104JZ	P 0.1UF J 50V	R366	ERDS2TJ101	C 100 OHM J 1/4W
C5412	ECQV1H104JZ	P 0.1UF J 50V	R367	ERDS2TJ101	C 100 OHM J 1/4W
C5413	ECCF1H101J	C 100PF J 50V	R368	ERDS2TJ101	C 100 OHM J 1/4W
C5414	ECQB1H562JF	P 5600PF J 50V	R369	ERDS2TJ123	C 12K OHM J 1/4W
C5415	ECKF1H103ZF	C 0.01UF Z 50V	R370	ERDS2TJ123	C 12K OHM J 1/4W
C5416	ECQB1H562JF	P 5600PF J 50V	R371	ERDS2TJ123	C 12K OHM J 1/4W
C5417	ECQV1H224JZ	P 0.22UF J 50V	R372	ERG3SJ822	M 8.2K OHM J 3W
C5418	ECEA1CU100	E 10UF 16V	△ R373	ERG3SJ822	M 8.2K OHM J 3W
C5420	ECEA1CU101	E 100UF 16V	△ R374	ERG3SJ822	M 8.2K OHM J 3W
C5421	ECEA1CU470	E 47UF 16V	R375	ERDS1FJ330	C 33 OHM J 1/2W
C5422	ECKF1H103ZF	C 0.01UF Z 50V			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R376	ERDS1FJ330	C 33 OHM J 1/2W	R508	EVND1AA00B54	CONTROL B 50K OHM
R377	ERDS1FJ330	C 33 OHM J 1/2W	R509	ERDS2TJ473	C 47K OHM J 1/4W
R378	ERDS1FJ330	C 33 OHM J 1/2W	R510	EVND1AA00B14	CONTROL B 10K OHM
R379	ERDS1FJ330	C 33 OHM J 1/2W	R511	ERDS2TJ154	C 150K OHM J 1/4W
R380	ERDS1FJ330	C 33 OHM J 1/2W	△ R512	EROS2CKF1502	M 15K OHM F 1/4W
R381	ERQ12AJ331	F 330 OHM J 1/2W	R515	EROS2CKF8200	M 820 OHM F 1/4W
R382	ERQ12AJ331	F 330 OHM J 1/2W	R517	ERDS2TJ332	C 3.3K OHM J 1/4W
R383	ERQ12AJ331	F 330 OHM J 1/2W	R519	ERDS2TJ333	C 33K OHM J 1/4W
R384	ERDS1FJ101	C 100 OHM J 1/2W	R522	ERDS2TJ683	C 68K OHM J 1/4W
R385	ERDS1FJ101	C 100 OHM J 1/2W	R523	ERDS2TJ103	C 10K OHM J 1/4W
R386	ERDS1FJ101	C 100 OHM J 1/2W	R525	ERDS2TJ334	C 330K OHM J 1/4W
R387	ERDS1FJ102	C 1K OHM J 1/2W	R526	ERDS2TJ823	C 82K OHM J 1/4W
R388	ERDS1FJ102	C 1K OHM J 1/2W	R527	ERDS2TJ183	C 18K OHM J 1/4W
R389	ERDS1FJ102	C 1K OHM J 1/2W	R528	ERDS2TJ223	C 22K OHM J 1/4W
R393	ERDS2TJ184	C 180K OHM J 1/4W	R529	EROS2CKF3901	M 3.9K OHM F 1/4W
R395	ERDS2TJ184	C 180K OHM J 1/4W	R531	ERDS2TJ103	C 10K OHM J 1/4W
R401	ERDS2TJ563	C 56K OHM J 1/4W	R532	ERDS2TJ103	C 10K OHM J 1/4W
R402	EVND1AA00B15	CONTROL B 100K OHM	R533	ERDS2TJ124	C 120K OHM J 1/4W
R403	ERDS2TJ393	C 39K OHM J 1/4W	R534	ERDS2TJ561	C 560 OHM J 1/4W
R404	ERDS2TJ222	C 2.2K OHM J 1/4W	R535	ERDS2TJ391	C 390 OHM J 1/4W
R405	ERDS2TJ222	C 2.2K OHM J 1/4W	R537	ERDS2TJ153	C 15K OHM J 1/4W
R407	ERDS2TJ822	C 8.2K OHM J 1/4W	R538	ERDS2TJ333	C 33K OHM J 1/4W
R409	ERDS2TJ393	C 39K OHM J 1/4W	R540	ERD25FJ8R2K	C 8.2 OHM J 1/4W
R420	ERD25FJ222K	C 2.2K OHM J 1/4W	R541	ERDS2TJ331	C 330 OHM J 1/4W
R421	ERD25FJ103K	C 10K OHM J 1/4W	△ R542	ERO25CKF1502	M 15K OHM F 1/4W
R423	ERDS2TJ103	C 10K OHM J 1/4W	R551	ERD25FJ471K	C 470 OHM J 1/4W
R451	ERDS2TJ102	C 1K OHM J 1/4W	R552	ERDS2TJ562	C 5.6K OHM J 1/4W
R452	ERDS2TJ473	C 47K OHM J 1/4W	△ R553	ERQ2CJP561	F 560 OHM J 2W
R453	ERDS2TJ332	C 3.3K OHM J 1/4W	R554	ERG5ZJ562	M 5.6K OHM J 5W
R454	ERDS2TJ473	C 47K OHM J 1/4W	R555	ERDS2TJ273	C 27K OHM J 1/4W
R455	ERDS2TJ393	C 39K OHM J 1/4W	R556	ERDS2TJ102	C 1K OHM J 1/4W
R456	ERDS2TJ822	C 8.2K OHM J 1/4W	R557	ERDS2TJ562	C 5.6K OHM J 1/4W
R458	ERDS2TJ1R5	C 1.5 OHM J 1/4W	R558	ERDS1FJ564	C 560K OHM J 1/2W
R459	ERDS2TJ330	C 33 OHM J 1/4W	R563	EVND1AA00B54	CONTROL B 50K OHM
R460	ERDS2TJ330	C 33 OHM J 1/4W	R564	ERD25FJ333K	C 33K OHM J 1/4W
R461	ERDS2TJ562	C 5.6K OHM J 1/4W	R572	ERDS1FJ224	C 220K OHM J 1/2W
R462	ERDS1FJ1R5	C 1.5 OHM J 1/2W	R573	ERDS2TJ562	C 5.6K OHM J 1/4W
R463	ERDS1FJ271	C 270 OHM J 1/2W	R574	ERDS1FJ224	C 220K OHM J 1/2W
R464	ERDS2TJ392	C 3.9K OHM J 1/4W	R575	ERG1SJ471	M 470 OHM J 1W
R465	ERDS2TJ153	C 15K OHM J 1/4W	△ R577	ERQ2CKPR82S	F 0.82 OHM J 2W
R466	ERG2SUJ181	M 180 OHM J 2W	R578	ERG1ANJ102	M 1K OHM J 1W
R467	ERDS2TJ821	C 820 OHM J 1/4W	R580	ERD25TCO	C 0 OHM J 1/4W
R468	EVNDXAA00B14	CONTROL B 10K OHM	R585	EROS2CKF3901	M 3.9K OHM F 1/4W
R469	ERDS2TJ472	C 4.7K OHM J 1/4W	R600	ERQ12HJ3R3	F 3.3 OHM J 1/2W
△ R471	TSF39801	FUSE	R601	ERDS2TJ331	C 330 OHM J 1/4W
R472	ERDS2TJ392	C 3.9K OHM J 1/4W	R602	ERDS2TJ122	C 1.2K OHM J 1/4W
R473	ERDS2TJ561	C 560 OHM J 1/4W	R603	ERDS2TJ331	C 330 OHM J 1/4W
R474	ERDS2TJ561	C 560 OHM J 1/4W	R604	EVND4AA00B52	CONTROL B 500 OHM
R475	ERDS2TJ562	C 5.6K OHM J 1/4W	R605	ERDS2TJ273	C 27K OHM J 1/4W
R480	ERDS2TJ822	C 8.2K OHM J 1/4W	R606	ERDS2TJ562	C 5.6K OHM J 1/4W
R481	ERDS2TJ392	C 3.9K OHM J 1/4W	R607	ERDS2TJ561	C 560 OHM J 1/4W
R482	ERDS2TJ562	C 5.6K OHM J 1/4W	R608	ERDS2TJ101	C 100 OHM J 1/4W
R483	ERDS2TJ153	C 15K OHM J 1/4W	R609	ERDS2TJ561	C 560 OHM J 1/4W
R484	ERDS2TJ101	C 100 OHM J 1/4W	R610	ERDS2TJ561	C 560 OHM J 1/4W
R485	ERDS2TJ102	C 1K OHM J 1/4W	R611	ERDS2TJ561	C 560 OHM J 1/4W
R502	ERDS2TJ683	C 68K OHM J 1/4W	R612	ERDS2TJ561	C 560 OHM J 1/4W
R503	ERDS2TJ222	C 2.2K OHM J 1/4W	R613	ERDS2TJ561	C 560 OHM J 1/4W
R504	ERDS2TJ820	C 82 OHM J 1/4W	R614	ERDS2TJ103	C 10K OHM J 1/4W
R505	ERDS2TJ682	C 6.8K OHM J 1/4W	R615	ERDS2TJ103	C 10K OHM J 1/4W
R506	ERDS2TJ184	C 180K OHM J 1/4W	R616	ERDS2TJ152	C 1.5K OHM J 1/4W
R507	ERDS2TJ103	C 10K OHM J 1/4W	R617	ERDS2TJ333	C 33K OHM J 1/4W
			R618	ERDS2TJ562	C 5.6K OHM J 1/4W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R619	ERDS2TJ102	C 1K OHM J 1/4W	R687	ERDS2TJ472	C 4.7K OHM J 1/4W
R621	ERDS2TJ181	C 180 OHM J 1/4W	R688	ERDS2TJ472	C 4.7K OHM J 1/4W
R622	ERDS2TJ331	C 330 OHM J 1/4W	R689	ERDS2TJ223	C 22K OHM J 1/4W
R623	ERDS2TJ102	C 1K OHM J 1/4W	R690	ERDS2TJ472	C 4.7K OHM J 1/4W
R624	ERDS2TJ331	C 330 OHM J 1/4W	R691	ERDS2TJ223	C 22K OHM J 1/4W
R625	ERDS2TJ682	C 6.8K OHM J 1/4W	R692	ERDS2TJ472	C 4.7K OHM J 1/4W
R626	ERDS2TJ472	C 4.7K OHM J 1/4W	R698	ERDS2TJ331	C 330 OHM J 1/4W
R627	ERC14GU106	S 10M OHM J 1/4W	R770	ERD25FJ332K	C 3.3K OHM J 1/4W
R628	ERD25FJ101K	C 100 OHM J 1/4W	R771	ERDS2TJ272	C 2.7K OHM J 1/4W
R629	ERDS2TJ101	C 100 OHM J 1/4W	R772	ERDS2TJ122	C 1.2K OHM J 1/4W
R630	ERD25FJ101K	C 100 OHM J 1/4W	R773	ERQ2CJP220S	F 22 OHM J 2W
R631	ERDS2TJ331	C 330 OHM J 1/4W	△ R801	ERF3AKR47	W 0.47 OHM K 3W
R632	ERDS2TJ102	C 1K OHM J 1/4W	△ R802	ERC12ZGK335	S 3.3M OHM K 1/2W
R633	ERDS2TJ104	C 100K OHM J 1/4W	△ R803	ERDS1FJ564	C 560K OHM J 1/2W
R634	ERDS2TJ391	C 390 OHM J 1/4W	△ R804	ERF5ZJ101	W 100 OHM J 5W
R635	ERDS2TJ104	C 100K OHM J 1/4W	△ R805	ERG3SJU330	M 33 OHM U 3W
R636	ERDS2TJ331	C 330 OHM J 1/4W	△ R808	ERG3SJU473	M 47K OHM U 3W
R637	ERDS2TJ102	C 1K OHM J 1/4W	△ R811	ERQ1CKPR33	F 0.33 OHM K 1W
R638	ERDS2TJ221	C 220 OHM J 1/4W	△ R814	ERD75TAJ825	C 8.2M OHM J 3/4W
R639	ERDS2TJ331	C 330 OHM J 1/4W	△ R815	ERW12PKR47	W 0.47 OHM K 1/2W
R640	ERDS2TJ101	C 100 OHM J 1/4W	△ R821	ERQ12HJ1R2	F 1.2 OHM J 1/2W
R642	ERDS2TJ152	C 1.5K OHM J 1/4W	R824	ERD25FJ102K	C 1K OHM J 1/4W
R643	ERDS2TJ222	C 2.2K OHM J 1/4W	△ R825	ERQ14AJ471	F 470 OHM J 1/4W
R644	ERDS2TJ152	C 1.5K OHM J 1/4W	△ R826	ERQ12HKR82	F 0.82 OHM K 1/2W
R645	ERDS2TJ471	C 470 OHM J 1/4W	△ R830	ERQ2CJP4R7S	F 4.7 OHM J 2W
R646	ERDS2TJ331	C 330 OHM J 1/4W	△ R831	ERQ12HKR22	F 0.22 OHM K 1/2W
R647	ERDS2TJ102	C 1K OHM J 1/4W	△ R832	ERDS1FJ471	C 470 OHM J 1/2W
R648	ERDS2TJ221	C 220 OHM J 1/4W	R860	ERDS1FJ2R2	C 2.2 OHM J 1/2W
R649	ERDS2TJ103	C 10K OHM J 1/4W	R861	ERDS1FJ2R2	C 2.2 OHM J 1/2W
R650	ERDS2TJ103	C 10K OHM J 1/4W	R862	ERDS1FJ1R2	C 1.2 OHM J 1/2W
R651	ERDS2TJ103	C 10K OHM J 1/4W	R863	ERDS1FJ272	C 2.7K OHM J 1/2W
R653	ERDS2TJ391	C 390 OHM J 1/4W	R864	ERD25FJ223K	C 22K OHM J 1/4W
R655	ERDS2TJ472	C 4.7K OHM J 1/4W	R865	ERDS2TJ223	C 22K OHM J 1/4W
R656	ERDS2TJ331	C 330 OHM J 1/4W	R866	ERDS2TJ103	C 10K OHM J 1/4W
R657	ERDS2TJ122	C 1.2K OHM J 1/4W	R867	ERDS2TJ102	C 1K OHM J 1/4W
R659	ERDS2TJ471	C 470 OHM J 1/4W	R870	ERF2AJ100	W 10 OHM J 2W
R660	ERD25FJ102K	C 1K OHM J 1/4W	△ R881	ERDS1FJ103	C 10K OHM J 1/2W
R661	ERDS2TJ562	C 5.6K OHM J 1/4W	△ R885	ERD25FJ102K	C 1K OHM J 1/4W
R662	ERDS2TJ103	C 10K OHM J 1/4W	R886	ERDS2TJ472	C 4.7K OHM J 1/4W
R663	EVND4AA00B13	CONTROL B 1K OHM	△ R888	ERG2SJ683	M 68K OHM J 2W
R664	ERDS2TJ751	C 750 OHM J 1/4W	R889	ERDS2TJ333	C 33K OHM J 1/4W
R665	ERDS2TJ821	C 820 OHM J 1/4W	△ R890	ERDS1FJ154	C 150K OHM J 1/2W
R666	ERDS2TJ102	C 1K OHM J 1/4W	△ R891	ERDS1FJ474	C 470K OHM J 1/2W
R667	ERDS2TJ821	C 820 OHM J 1/4W	R1300	ERDS2TJ103	C 10K OHM J 1/4W
R668	ERDS2TJ681	C 680 OHM J 1/4W	R1301	ERDS2TJ153	C 15K OHM J 1/4W
R669	ERD25FJ472K	C 4.7K OHM J 1/4W	R1302	ERDS2TJ682	C 6.8K OHM J 1/4W
R670	EVND1AA00B54	CONTROL B 50K OHM	R1303	ERDS2TJ473	C 47K OHM J 1/4W
R671	ERDS2TJ332	C 3.3K OHM J 1/4W	R1304	ERDS2TJ223	C 22K OHM J 1/4W
R672	ERD25FJ561K	C 560 OHM J 1/4W	R1305	ERDS2TJ101	C 100 OHM J 1/4W
R673	ERDS2TJ561	C 560 OHM J 1/4W	R1306	EROS2CKF3000	M 300 OHM F 1/4W
R674	ERDS2TJ472	C 4.7K OHM J 1/4W	R1307	ERDS2TJ101	C 100 OHM J 1/4W
R675	ERDS2TJ682	C 6.8K OHM J 1/4W	R1308	ERDS2TJ121	C 120 OHM J 1/4W
R676	ERDS2TJ101	C 100 OHM J 1/4W	R1309	ERDS2TJ471	C 470 OHM J 1/4W
R677	ERDS2TJ101	C 100 OHM J 1/4W	R1310	ERDS2TJ473	C 47K OHM J 1/4W
R678	ERDS2TJ101	C 100 OHM J 1/4W	R1311	ERDS2TJ223	C 22K OHM J 1/4W
R679	ERDS2TJ103	C 10K OHM J 1/4W	R1312	ERDS2TJ102	C 1K OHM J 1/4W
R680	ERDS2TJ105	C 1M OHM J 1/4W	R1313	ERDS2TJ102	C 1K OHM J 1/4W
R681	ERDS2TJ472	C 4.7K OHM J 1/4W	R1314	ERDS2TJ473	C 47K OHM J 1/4W
R684	ERDS2TJ181	C 180 OHM J 1/4W	R1315	ERDS2TJ223	C 22K OHM J 1/4W
R685	ERDS2TJ122	C 1.2K OHM J 1/4W	R1316	EVND4AA00B13	CONTROL B 1K OHM
R686	ERDS2TJ472	C 4.7K OHM J 1/4W	R1317	ERD25FJ222K	C 2.2K OHM J 1/4W
			R1318	ERDS2TJ331	C 330 OHM J 1/4W
			R1319	ERDS2TJ333	C 33K OHM J 1/4W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R1320	ERDS2TJ222	C 2.2K OHM J 1/4W	R1646	ERDS2TJ103	C 10K OHM J 1/4W
R1321	ERDS2TJ391	C 390 OHM J 1/4W	R1647	ERDS2TJ222	C 2.2K OHM J 1/4W
R1322	ERDS2TJ121	C 120 OHM J 1/4W	R1653	ERDS2TJ272	C 2.7K OHM J 1/4W
R1323	ERDS2TJ102	C 1K OHM J 1/4W	R1654	ERDS2TJ822	C 8.2K OHM J 1/4W
R1324	ERDS2TJ102	C 1K OHM J 1/4W	R1661	ERDS2TJ393	C 39K OHM J 1/4W
R1325	ERDS2TJ152	C 1.5K OHM J 1/4W	R1662	ERDS2TJ223	C 22K OHM J 1/4W
R1326	ERD25FJ102K	C 1K OHM J 1/4W	R1663	ERDS2TJ102	C 1K OHM J 1/4W
R1327	ERDS2TJ102	C 1K OHM J 1/4W	R1664	ERDS2TJ561	C 560 OHM J 1/4W
R1332	ERDS2TJ223	C 22K OHM J 1/4W	R1668	ERDS2TJ221	C 220 OHM J 1/4W
R1333	ERDS2TJ473	C 47K OHM J 1/4W	R1669	ERDS2TJ333	C 33K OHM J 1/4W
R1334	ERDS2TJ221	C 220 OHM J 1/4W	R1670	ERDS2TJ221	C 220 OHM J 1/4W
R1335	ERDS2TJ222	C 2.2K OHM J 1/4W	R1671	ERDS2TJ472	C 4.7K OHM J 1/4W
R1336	ERDS2TJ121	C 120 OHM J 1/4W	R1672	ERDS2TJ183	C 18K OHM J 1/4W
R1337	ERDS2TJ103	C 10K OHM J 1/4W	R1673	ERDS2TJ563	C 56K OHM J 1/4W
R1339	ERDS2TJ102	C 1K OHM J 1/4W	R1674	ERDS2TJ152	C 1.5K OHM J 1/4W
R1341	ERDS2TJ101	C 100 OHM J 1/4W	R1675	ERDS2TJ121	C 120 OHM J 1/4W
R1344	ERDS2TJ102	C 1K OHM J 1/4W	R1676	ERDS2TJ103	C 10K OHM J 1/4W
R1345	ERDS2TJ102	C 1K OHM J 1/4W	R1677	ERDS2TJ102	C 1K OHM J 1/4W
R1346	ERDS2TJ152	C 1.5K OHM J 1/4W	R3300	ERDS2TJ101	C 100 OHM J 1/4W
R1347	ERDS2TJ152	C 1.5K OHM J 1/4W	R3302	ERDS2TJ101	C 100 OHM J 1/4W
R1348	ERDS2TJ332	C 3.3K OHM J 1/4W	R3304	ERDS2TJ103	C 10K OHM J 1/4W
R1357	ERDS2TJ471	C 470 OHM J 1/4W	R3305	ERDS2TJ102	C 1K OHM J 1/4W
R1358	ERDS2TJ681	C 680 OHM J 1/4W	R3307	ERDS2TJ101	C 100 OHM J 1/4W
R1359	ERDS2TJ181	C 180 OHM J 1/4W	R3308	ERDS2TJ563	C 56K OHM J 1/4W
R1361	ERDS2TJ222	C 2.2K OHM J 1/4W	R3309	ERDS2TJ102	C 1K OHM J 1/4W
R1362	ERDS2TJ271	C 270 OHM J 1/4W	R3315	ERDS2TJ103	C 10K OHM J 1/4W
R1367	ERDS2TJ271	C 270 OHM J 1/4W	R3316	ERDS2TJ102	C 1K OHM J 1/4W
R1372	ERDS2TJ472	C 4.7K OHM J 1/4W	R3317	EVTF4CA00B24	CONTROL B 20K OHM
R1373	ERDS2TJ334	C 330K OHM J 1/4W	R3318	ERDS2TJ102	C 1K OHM J 1/4W
R1374	ERDS2TJ104	C 100K OHM J 1/4W	R3319	ERD25FJ223K	C 22K OHM J 1/4W
R1375	ERDS2TJ102	C 1K OHM J 1/4W	R3320	ERDS2TJ103	C 10K OHM J 1/4W
R1376	ERDS2TJ333	C 33K OHM J 1/4W	R3321	ERDS2TJ101	C 100 OHM J 1/4W
R1377	ERDS2TJ103	C 10K OHM J 1/4W	R3322	ERDS2TJ101	C 100 OHM J 1/4W
R1378	ERDS2TJ103	C 10K OHM J 1/4W	R3323	ERDS2TJ101	C 100 OHM J 1/4W
R1380	EXBF4E103J	RR COMBINATION	R3324	ERDS2TJ101	C 100 OHM J 1/4W
R1381	EXBF4E103J	RR COMBINATION	R3325	ERDS2TJ101	C 100 OHM J 1/4W
R1382	ERDS2TJ102	C 1K OHM J 1/4W	R3326	ERDS2TJ101	C 100 OHM J 1/4W
R1383	ERDS2TJ682	C 6.8K OHM J 1/4W	R3327	ERDS2TJ472	C 4.7K OHM J 1/4W
R1384	ERDS2TJ102	C 1K OHM J 1/4W	R3329	ERDS2TJ101	C 100 OHM J 1/4W
R1386	ERDS2TJ102	C 1K OHM J 1/4W	R3330	ERDS2TJ101	C 100 OHM J 1/4W
R1387	ERD25FJ102K	C 1K OHM J 1/4W	R3332	ERDS2TJ682	C 6.8K OHM J 1/4W
R1388	ERDS2TJ102	C 1K OHM J 1/4W	R3333	ERDS2TJ153	C 15K OHM J 1/4W
R1389	ERDS2TJ103	C 10K OHM J 1/4W	R3334	ERDS2TJ101	C 100 OHM J 1/4W
R1392	ERDS2TJ223	C 22K OHM J 1/4W	R3335	ERDS2TJ153	C 15K OHM J 1/4W
R1394	EXBF5E472J	RR COMBINATION	R3338	ERDS2TJ562	C 5.6K OHM J 1/4W
R1395	ERDS2TJ101	C 100 OHM J 1/4W	R3339	EVTF4CA00B14	CONTROL B 10K OHM
R1398	ERDS2TJ103	C 10K OHM J 1/4W	R3340	ERDS2TJ562	C 5.6K OHM J 1/4W
R1399	ERD25FJ331K	C 330 OHM J 1/4W	R3344	EVTF4CA00B53	CONTROL B 5K OHM
R1601	ERDS2TJ104	C 100K OHM J 1/4W	R3345	ERDS2TJ122	C 1.2K OHM J 1/4W
R1615	ERDS2TJ222	C 2.2K OHM J 1/4W	R3346	ERDS2TJ223	C 22K OHM J 1/4W
R1618	ERDS2TJ102	C 1K OHM J 1/4W	R3347	EVTF4CA00B15	CONTROL B 100K OHM
R1619	ERDS2TJ391	C 390 OHM J 1/4W	R3348	ERDS2TJ332	C 3.3K OHM J 1/4W
R1620	ERDS2TJ101	C 100 OHM J 1/4W	R3349	EVTF4CA00B53	CONTROL B 5K OHM
R1621	ERDS2TJ222	C 2.2K OHM J 1/4W	R3351	EVTF4CA00B15	CONTROL B 100K OHM
R1622	ERDS2TJ681	C 680 OHM J 1/4W	R3352	ERDS2TJ333	C 33K OHM J 1/4W
R1626	ERDS2TJ104	C 100K OHM J 1/4W	R3354	EVTF4CA00B33	CONTROL B 3K OHM
R1627	ERDS2TJ101	C 100 OHM J 1/4W	R3355	ERDS2TJ153	C 15K OHM J 1/4W
R1628	ERDS2TJ273	C 27K OHM J 1/4W	R3357	ERDS2TJ103	C 10K OHM J 1/4W
R1642	ERDS2TJ472	C 4.7K OHM J 1/4W	R3359	ERDS2TJ472	C 4.7K OHM J 1/4W
R1643	ERDS2TJ472	C 4.7K OHM J 1/4W	R3360	ERDS2TJ153	C 15K OHM J 1/4W
R1644	ERDS2TJ103	C 10K OHM J 1/4W	R3361	ERDS2TJ822	C 8.2K OHM J 1/4W
R1645	ERDS2TJ682	C 6.8K OHM J 1/4W	R3362	ERDS2TJ104	C 100K OHM J 1/4W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R3363	ERDS2TJ684	C 680K OHM J 1/4W	R4212	ERDS2TJ103	C 10K OHM J 1/4W
R3364	ERDS2TJ684	C 680K OHM J 1/4W	R4301	ERD25FJ750K	C 75 OHM J 1/4W
R3365	ERDS2TJ562	C 5.6K OHM J 1/4W	R4302	ERD25FJ750K	C 75 OHM J 1/4W
R3366	EVTF4CA00B15	CONTROL B 100K OHM	R4303	ERD25FJ750K	C 75 OHM J 1/4W
R3367	ERDS2TJ684	C 680K OHM J 1/4W	R4304	ERD25FJ750K	C 75 OHM J 1/4W
R3374	ERDS2TJ103	C 10K OHM J 1/4W	R4305	ERD25FJ750K	C 75 OHM J 1/4W
R3378	EROS2CKF1801	M 1.8K OHM F 1/4W	R4306	ERD25FJ750K	C 75 OHM J 1/4W
R3379	ERDS2TJ222	C 2.2K OHM J 1/4W	R4307	ERD25FJ151K	C 150 OHM J 1/4W
R3380	ERDS2TJ101	C 100 OHM J 1/4W	R4308	ERD25FJ151K	C 150 OHM J 1/4W
R3381	EVTF4CA00B25	CONTROL B 200K OHM	R4309	ERD25FJ151K	C 150 OHM J 1/4W
R3382	ERDS2TJ101	C 100 OHM J 1/4W	R4311	ERDS2TJ221	C 220 OHM J 1/4W
R3384	ERDS2TJ101	C 100 OHM J 1/4W	R4312	ERDS2TJ563	C 56K OHM J 1/4W
R3386	ERDS2TJ102	C 1K OHM J 1/4W	R4313	ERDS2TJ101	C 100 OHM J 1/4W
R3389	ERDS2TJ101	C 100 OHM J 1/4W	R4314	ERDS2TJ103	C 10K OHM J 1/4W
R3390	ERDS2TJ332	C 3.3K OHM J 1/4W	R4315	ERDS2TJ103	C 10K OHM J 1/4W
R3393	EVTF4CA00B14	CONTROL B 10K OHM	R4316	ERDS2TJ562	C 5.6K OHM J 1/4W
R3394	ERDS2TJ102	C 1K OHM J 1/4W	R4317	ERDS2TJ273	C 27K OHM J 1/4W
R3395	ERDS2TJ222	C 2.2K OHM J 1/4W	R4318	ERDS2TJ471	C 470 OHM J 1/4W
R3396	ERD25FJ222K	C 2.2K OHM J 1/4W	R4319	ERDS2TJ561	C 560 OHM J 1/4W
R3397	ERQ1CJP1R0	F 1 OHM J 1W	R4324	ERDS2TJ682	C 6.8K OHM J 1/4W
R3398	ERDS2TJ472	C 4.7K OHM J 1/4W	R4326	ERD25FJ750K	C 75 OHM J 1/4W
R3399	ERDS2TJ222	C 2.2K OHM J 1/4W	R4327	ERDS2TJ102	C 1K OHM J 1/4W
R3404	ERDS2TJ123	C 12K OHM J 1/4W	R4328	ERDS2TJ104	C 100K OHM J 1/4W
R3405	ERDS2TJ473	C 47K OHM J 1/4W	R4329	ERDS2TJ101	C 100 OHM J 1/4W
R3407	ERDS1FJ100	C 10 OHM J 1/2W	R4330	ERDS2TJ101	C 100 OHM J 1/4W
R3409	ERDS2TJ153	C 15K OHM J 1/4W	R4334	ERDS2TJ471	C 470 OHM J 1/4W
R3410	ERDS2TJ223	C 22K OHM J 1/4W	R5106	ERDS2TJ473	C 47K OHM J 1/4W
R3411	ERD25FJ682K	C 6.8K OHM J 1/4W	R5107	EVJO2WF25B14	CONTROL B 10K OHM
R3414	ERDS2TJ103	C 10K OHM J 1/4W	R5108	ERDS2TJ392	C 3.9K OHM J 1/4W
R3415	ERDS2TJ562	C 5.6K OHM J 1/4W	R5109	ERDS2TJ221	C 220 OHM J 1/4W
R3416	ERDS2TJ103	C 10K OHM J 1/4W	R5110	ERDS2TJ102	C 1K OHM J 1/4W
R3417	ERDS2TJ153	C 15K OHM J 1/4W	R5111	EVJO2WF25B14	CONTROL B 10K OHM
R3420	ERDS2TJ472	C 4.7K OHM J 1/4W	R5112	ERDS2TJ102	C 1K OHM J 1/4W
R3421	ERDS2TJ471	C 470 OHM J 1/4W	R5113	ERDS2TJ221	C 220 OHM J 1/4W
R3422	ERDS2TJ471	C 470 OHM J 1/4W	R5114	ERDS2TJ472	C 4.7K OHM J 1/4W
R3423	ERDS2TJ471	C 470 OHM J 1/4W	R5115	EVJO2WF25B14	CONTROL B 10K OHM
R3424	ERDS2TJ472	C 4.7K OHM J 1/4W	R5116	ERDS2TJ103	C 10K OHM J 1/4W
R3425	ERDS2TJ472	C 4.7K OHM J 1/4W	R5117	ERDS2TJ221	C 220 OHM J 1/4W
R3426	ERDS2TJ103	C 10K OHM J 1/4W	R5118	ERDS2TJ153	C 15K OHM J 1/4W
R3427	ERDS2TJ561	C 560 OHM J 1/4W	R5119	EVJO2WF25B14	CONTROL B 10K OHM
R3428	ERDS2TJ103	C 10K OHM J 1/4W	R5120	ERDS2TJ152	C 1.5K OHM J 1/4W
R3430	ERDS2TJ562	C 5.6K OHM J 1/4W	R5121	ERDS2TJ221	C 220 OHM J 1/4W
R3431	ERDS2TJ182	C 1.8K OHM J 1/4W	R5122	ERDS2TJ472	C 4.7K OHM J 1/4W
R3432	ERDS2TJ153	C 15K OHM J 1/4W	R5123	EVJO2WF25B14	CONTROL B 10K OHM
R3436	ERDS2TJ222	C 2.2K OHM J 1/4W	R5124	ERDS2TJ822	C 8.2K OHM J 1/4W
R3437	ERDS2TJ222	C 2.2K OHM J 1/4W	R5125	ERDS2TJ221	C 220 OHM J 1/4W
R3438	ERDS2TJ822	C 8.2K OHM J 1/4W	R5126	ERDS2TJ102	C 1K OHM J 1/4W
R3439	ERDS2TJ332	C 3.3K OHM J 1/4W	R5127	EVJO2WF25B14	CONTROL B 10K OHM
R3440	ERDS2TJ222	C 2.2K OHM J 1/4W	R5128	ERDS2TJ101	C 100 OHM J 1/4W
R3451	ERDS2TJ222	C 2.2K OHM J 1/4W	R5129	ERDS2TJ221	C 220 OHM J 1/4W
R3452	ERDS2TJ124	C 120K OHM J 1/4W	R5130	ERDS2TJ102	C 1K OHM J 1/4W
R3499	ERDS2TJ184	C 180K OHM J 1/4W	R5131	ERDS2TJ102	C 1K OHM J 1/4W
R4201	ERDS2TJ102	C 1K OHM J 1/4W	R5132	EVJO2WF25B14	CONTROL B 10K OHM
R4202	ERDS2TJ104	C 100K OHM J 1/4W	R5133	ERDS2TJ332	C 3.3K OHM J 1/4W
R4203	ERDS2TJ103	C 10K OHM J 1/4W	R5134	ERDS2TJ683	C 68K OHM J 1/4W
R4204	ERDS2TJ222	C 2.2K OHM J 1/4W	R5135	EVJO2WF25B54	CONTROL B 50K OHM
R4205	ERDS2TJ473	C 47K OHM J 1/4W	R5136	ERDS2TJ101	C 100 OHM J 1/4W
R4206	ERDS2TJ103	C 10K OHM J 1/4W	R5137	ERDS2TJ102	C 1K OHM J 1/4W
R4207	ERDS2TJ473	C 47K OHM J 1/4W	R5138	ERDS2TJ102	C 1K OHM J 1/4W
R4208	ERDS2TJ102	C 1K OHM J 1/4W	R5145	ERDS2TJ101	C 100 OHM J 1/4W
R4209	ERDS2TJ104	C 100K OHM J 1/4W	R5146	ERDS2TJ153	C 15K OHM J 1/4W
R4210	ERDS2TJ102	C 1K OHM J 1/4W	R5147	ERDS2TJ153	C 15K OHM J 1/4W
R4211	ERDS2TJ104	C 100K OHM J 1/4W			

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R5148	ERDS2TJ153	C 15K OHM J 1/4W	R5338	ERDS2TJ472	C 4.7K OHM J 1/4W
R5150	ERDS2TJ222	C 2.2K OHM J 1/4W	R5339	ERDS2TJ472	C 4.7K OHM J 1/4W
R5151	ERDS2TJ392	C 3.9K OHM J 1/4W	R5340	ERDS2TJ682	C 6.8K OHM J 1/4W
R5152	ERDS2TJ682	C 6.8K OHM J 1/4W	R5341	ERDS2TJ103	C 10K OHM J 1/4W
R5153	ERD25FJ223K	C 22K OHM J 1/4W	R5342	ERDS2TJ822	C 8.2K OHM J 1/4W
R5154	ERD25FJ102K	C 1K OHM J 1/4W	R5343	ERDS2TJ103	C 10K OHM J 1/4W
R5201	ERDS2TJ472	C 4.7K OHM J 1/4W	R5344	ERDS2TJ473	C 47K OHM J 1/4W
R5202	ERDS2TJ472	C 4.7K OHM J 1/4W	R5345	ERDS2TJ563	C 56K OHM J 1/4W
R5203	ERDS2TJ472	C 4.7K OHM J 1/4W	R5346	ERDS2TJ563	C 56K OHM J 1/4W
R5207	ERDS2TJ104	C 100K OHM J 1/4W	R5347	ERDS2TJ472	C 4.7K OHM J 1/4W
R5208	ERDS2TJ104	C 100K OHM J 1/4W	R5349	ERDS2TJ101	C 100 OHM J 1/4W
R5209	ERDS2TJ104	C 100K OHM J 1/4W	R5351	ERD25FJ103K	C 10K OHM J 1/4W
R5210	ERDS2TJ682	C 6.8K OHM J 1/4W	R5356	ERDS2TJ391	C 390 OHM J 1/4W
R5211	ERDS2TJ562	C 5.6K OHM J 1/4W	R5358	ERDS2TJ391	C 390 OHM J 1/4W
R5212	ERDS2TJ102	C 1K OHM J 1/4W	R5360	ERDS2TJ391	C 390 OHM J 1/4W
R5213	ERDS2TJ104	C 100K OHM J 1/4W	R5361	ERDS2TJ103	C 10K OHM J 1/4W
R5214	ERDS2TJ221	C 220 OHM J 1/4W	R5362	EVND4AA00B23	CONTROL B 2K OHM
R5215	ERDS2TJ102	C 1K OHM J 1/4W	R5363	ERDS2TJ103	C 10K OHM J 1/4W
R5216	ERDS2TJ101	C 100 OHM J 1/4W	R5364	ERDS2TJ101	C 100 OHM J 1/4W
R5217	ERDS2TJ104	C 100K OHM J 1/4W	R5365	ERDS2TJ682	C 6.8K OHM J 1/4W
R5218	ERDS2TJ103	C 10K OHM J 1/4W	R5366	ERDS2TJ682	C 6.8K OHM J 1/4W
R5219	ERDS2TJ104	C 100K OHM J 1/4W	R5367	ERD25FJ472K	C 4.7K OHM J 1/4W
R5220	ERDS2TJ103	C 10K OHM J 1/4W	R5368	ERDS2TJ124	C 120K OHM J 1/4W
R5221	ERDS2TJ104	C 100K OHM J 1/4W	R5369	ERDS2TJ124	C 120K OHM J 1/4W
R5222	ERDS2TJ104	C 100K OHM J 1/4W	R5370	ERDS2TJ101	C 100 OHM J 1/4W
R5223	ERDS2TJ562	C 5.6K OHM J 1/4W	R5371	ERDS2TJ682	C 6.8K OHM J 1/4W
R5224	ERDS2TJ562	C 5.6K OHM J 1/4W	R5372	ERDS2TJ472	C 4.7K OHM J 1/4W
R5225	ERDS2TJ393	C 39K OHM J 1/4W	R5373	ERDS2TJ472	C 4.7K OHM J 1/4W
R5230	ERDS1FJ101	C 100 OHM J 1/2W	R5374	ERDS2TJ682	C 6.8K OHM J 1/4W
R5301	ERDS2TJ221	C 220 OHM J 1/4W	R5375	ERDS2TJ103	C 10K OHM J 1/4W
R5302	ERDS2TJ333	C 33K OHM J 1/4W	R5376	ERDS2TJ103	C 10K OHM J 1/4W
R5303	ERDS2TJ333	C 33K OHM J 1/4W	R5377	EVND4AA00B23	CONTROL B 2K OHM
R5304	ERDS2TJ332	C 3.3K OHM J 1/4W	R5378	ERDS2TJ391	C 390 OHM J 1/4W
R5305	ERD25FJ222K	C 2.2K OHM J 1/4W	R5379	ERDS2TJ391	C 390 OHM J 1/4W
R5306	ERDS2TJ561	C 560 OHM J 1/4W	R5380	ERDS2TJ561	C 560 OHM J 1/4W
R5307	ERDS2TJ102	C 1K OHM J 1/4W	R5381	ERDS2TJ221	C 220 OHM J 1/4W
R5308	ERDS2TJ221	C 220 OHM J 1/4W	R5382	ERDS2TJ124	C 120K OHM J 1/4W
R5309	ERDS2TJ102	C 1K OHM J 1/4W	R5383	ERDS2TJ124	C 120K OHM J 1/4W
R5310	ERDS2TJ331	C 330 OHM J 1/4W	R5384	ERDS2TJ101	C 100 OHM J 1/4W
R5311	ERDS2TJ331	C 330 OHM J 1/4W	R5385	ERDS2TJ472	C 4.7K OHM J 1/4W
R5312	ERDS2TJ331	C 330 OHM J 1/4W	R5386	ERDS2TJ222	C 2.2K OHM J 1/4W
R5313	ERDS2TJ153	C 15K OHM J 1/4W	R5387	ERDS2TJ682	C 6.8K OHM J 1/4W
R5314	ERDS2TJ153	C 15K OHM J 1/4W	R5388	ERDS2TJ152	C 1.5K OHM J 1/4W
R5315	ERDS2TJ153	C 15K OHM J 1/4W	R5389	ERDS2TJ682	C 6.8K OHM J 1/4W
R5316	ERDS2TJ333	C 33K OHM J 1/4W	R5390	ERDS2TJ682	C 6.8K OHM J 1/4W
R5317	ERDS2TJ333	C 33K OHM J 1/4W	R5391	ERDS2TJ101	C 100 OHM J 1/4W
R5318	ERDS2TJ333	C 33K OHM J 1/4W	R5392	ERDS2TJ103	C 10K OHM J 1/4W
R5319	ERDS2TJ122	C 1.2K OHM J 1/4W	R5393	ERDS2TJ103	C 10K OHM J 1/4W
R5320	ERDS2TJ122	C 1.2K OHM J 1/4W	R5394	ERDS2TJ102	C 1K OHM J 1/4W
R5321	ERDS2TJ122	C 1.2K OHM J 1/4W	R5395	ERDS2TJ101	C 100 OHM J 1/4W
R5322	ERDS2TJ102	C 1K OHM J 1/4W	R5396	ERDS2TJ333	C 33K OHM J 1/4W
R5323	ERDS2TJ101	C 100 OHM J 1/4W	R5397	ERDS2TJ563	C 56K OHM J 1/4W
R5324	ERDS2TJ101	C 100 OHM J 1/4W	R5398	ERDS2TJ563	C 56K OHM J 1/4W
R5325	ERDS2TJ101	C 100 OHM J 1/4W	R5399	ERDS2TJ333	C 33K OHM J 1/4W
R5328	ERDS2TJ102	C 1K OHM J 1/4W	R5403	ERDS2TJ101	C 100 OHM J 1/4W
R5330	ERDS2TJ101	C 100 OHM J 1/4W	R5404	ERDS2TJ391	C 390 OHM J 1/4W
R5331	ERDS2TJ222	C 2.2K OHM J 1/4W	R5405	ERDS2TJ151	C 150 OHM J 1/4W
R5332	ERDS2TJ101	C 100 OHM J 1/4W	R5407	ERDS2TJ124	C 120K OHM J 1/4W
R5333	ERDS2TJ103	C 10K OHM J 1/4W	R5410	ERDS2TJ152	C 1.5K OHM J 1/4W
R5334	ERDS2TJ123	C 12K OHM J 1/4W	R5411	ERDS2TJ102	C 1K OHM J 1/4W
R5335	ERDS2TJ102	C 1K OHM J 1/4W	R5412	ERDS2TJ152	C 1.5K OHM J 1/4W
R5336	ERDS2TJ101	C 100 OHM J 1/4W	R5413	ERDS2TJ392	C 3.9K OHM J 1/4W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R5414	ERDS2TJ221	C 220 OHM J 1/4W	R5609	EROS2CKF7500	M 750 OHM F 1/4W
R5416	ERDS2TJ562	C 5.6K OHM J 1/4W	R5610	EROS2CKF3651	M 3.65K OHM F 1/4W
R5418	ERDS2TJ332	C 3.3K OHM J 1/4W	R5611	ERD25FJ331K	C 330 OHM J 1/4W
R5419	ERDS2TJ562	C 5.6K OHM J 1/4W	R5612	ERDS2TJ103	C 10K OHM J 1/4W
R5420	ERDS2TJ101	C 100 OHM J 1/4W	R5613	ERDS2TJ103	C 10K OHM J 1/4W
R5424	ERDS2TJ102	C 1K OHM J 1/4W	R5615	ERDS2TJ223	C 22K OHM J 1/4W
R5425	ERDS2TJ681	C 680 OHM J 1/4W	R5616	ERDS2TJ473	C 47K OHM J 1/4W
R5426	ERDS2TJ153	C 15K OHM J 1/4W	R5617	ERDS2TJ563	C 56K OHM J 1/4W
R5427	ERDS2TJ103	C 10K OHM J 1/4W	R5618	ERDS2TJ333	C 33K OHM J 1/4W
R5428	ERDS2TJ472	C 4.7K OHM J 1/4W	R5619	ERDS2TJ223	C 22K OHM J 1/4W
R5429	ERDS2TJ334	C 330K OHM J 1/4W	R5620	ERDS2TJ472	C 4.7K OHM J 1/4W
R5430	ERDS2TJ682	C 6.8K OHM J 1/4W	R5621	ERDS2TJ223	C 22K OHM J 1/4W
R5431	ERDS2TJ102	C 1K OHM J 1/4W	R5622	ERDS2TJ472	C 4.7K OHM J 1/4W
R5432	ERDS2TJ103	C 10K OHM J 1/4W	R5624	ERDS2TJ821	C 820 OHM J 1/4W
R5433	ERDS2TJ562	C 5.6K OHM J 1/4W	R5625	EROS2CKF2431	M 2.43K OHM F 1/4W
R5434	ERDS2TJ103	C 10K OHM J 1/4W	R5626	EROS2CKF8200	M 820 OHM F 1/4W
R5435	ERDS2TJ563	C 56K OHM J 1/4W	R5627	EROS2CKF1741	M 1.74K OHM F 1/4W
R5436	ERDS2TJ563	C 56K OHM J 1/4W	R5628	EROS2CKF8200	M 820 OHM F 1/4W
R5437	ERDS2TJ682	C 6.8K OHM J 1/4W	R5632	ERDS2TJ331	C 330 OHM J 1/4W
R5439	ERDS2TJ103	C 10K OHM J 1/4W	R5636	ERDS2TJ472	C 4.7K OHM J 1/4W
R5442	ERDS2TJ103	C 10K OHM J 1/4W	R5637	ERDS2TJ331	C 330 OHM J 1/4W
R5443	ERDS2TJ562	C 5.6K OHM J 1/4W	R5639	ERDS2TJ101	C 100 OHM J 1/4W
R5444	EVND4AA00B24	CONTROL B 20K OHM	R5640	ERDS2TJ223	C 22K OHM J 1/4W
R5445	ERDS2TJ822	C 8.2K OHM J 1/4W	R5641	ERDS2TJ272	C 2.7K OHM J 1/4W
R5446	ERDS2TJ393	C 39K OHM J 1/4W	R5643	ERDS2TJ102	C 1K OHM J 1/4W
R5447	ERDS2TJ473	C 47K OHM J 1/4W	R5644	ERDS2TJ151	C 150 OHM J 1/4W
R5450	ERDS2TJ391	C 390 OHM J 1/4W	R5645	ERDS2TJ151	C 150 OHM J 1/4W
R5451	ERDS2TJ103	C 10K OHM J 1/4W	R5646	ERDS2TJ151	C 150 OHM J 1/4W
R5452	ERDS2TJ183	C 18K OHM J 1/4W	R5647	ERDS2TJ271	C 270 OHM J 1/4W
R5453	ERDS2TJ563	C 56K OHM J 1/4W	R5648	ERDS2TJ221	C 220 OHM J 1/4W
R5454	ERDS2TJ473	C 47K OHM J 1/4W	R5649	ERDS2TJ271	C 270 OHM J 1/4W
R5455	EVND4AA00B54	CONTROL B 50K OHM	R5650	ERDS2TJ221	C 220 OHM J 1/4W
R5456	ERDS2TJ561	C 560 OHM J 1/4W	R5651	ERDS2TJ271	C 270 OHM J 1/4W
R5457	ERDS2TJ391	C 390 OHM J 1/4W	R5652	ERDS2TJ221	C 220 OHM J 1/4W
R5458	ERDS1FJ331	C 330 OHM J 1/2W	R5653	ERDS2TJ562	C 5.6K OHM J 1/4W
R5459	ERDS2TJ222	C 2.2K OHM J 1/4W	R5654	ERDS1FJ151	C 150 OHM J 1/2W
R5461	ERDS2TJ681	C 680 OHM J 1/4W	R5751	ERDS2TJ393	C 39K OHM J 1/4W
R5463	ERDS2TJ152	C 1.5K OHM J 1/4W	R5752	ERDS2TJ682	C 6.8K OHM J 1/4W
R5464	ERDS2TJ472	C 4.7K OHM J 1/4W	R5753	ERDS2TJ471	C 470 OHM J 1/4W
R5465	ERD25FJ102K	C 1K OHM J 1/4W	R5754	ERDS2TJ182	C 1.8K OHM J 1/4W
R5466	ERDS2TJ331	C 330 OHM J 1/4W	R5755	ERDS2TJ102	C 1K OHM J 1/4W
R5472	ERDS2TJ682	C 6.8K OHM J 1/4W	R5756	ERDS2TJ222	C 2.2K OHM J 1/4W
R5475	ERDS2TJ222	C 2.2K OHM J 1/4W	R5757	ERDS2TJ153	C 15K OHM J 1/4W
R5476	ERDS2TJ103	C 10K OHM J 1/4W	R5758	ERDS2TJ154	C 150K OHM J 1/4W
R5477	ERDS2TJ472	C 4.7K OHM J 1/4W	R5759	ERDS2TJ124	C 120K OHM J 1/4W
R5480	ERDS2TJ272	C 2.7K OHM J 1/4W	R5760	ERDS2TJ154	C 150K OHM J 1/4W
R5481	ERDS2TJ682	C 6.8K OHM J 1/4W	R5761	ERDS2TJ473	C 47K OHM J 1/4W
R5486	ERDS2TJ122	C 1.2K OHM J 1/4W	R5762	ERDS2TJ102	C 1K OHM J 1/4W
R5487	ERDS2TJ821	C 820 OHM J 1/4W	R5763	ERDS2TJ103	C 10K OHM J 1/4W
R5488	ERDS2TJ122	C 1.2K OHM J 1/4W	R5764	EVND1AA00B24	CONTROL B 20K OHM
R5491	ERDS2TJ122	C 1.2K OHM J 1/4W	R5765	ERDS2TJ472	C 4.7K OHM J 1/4W
R5492	ERDS2TJ101	C 100 OHM J 1/4W	R5766	ERDS2TJ272	C 2.7K OHM J 1/4W
R5518	ERDS2TJ105	C 1M OHM J 1/4W	R5767	ERDS2TJ473	C 47K OHM J 1/4W
R5520	ERDS2TJ223	C 22K OHM J 1/4W	R5770	ERDS2TJ563	C 56K OHM J 1/4W
R5601	ERD25FJ331K	C 330 OHM J 1/4W	R5771	ERDS2TJ393	C 39K OHM J 1/4W
R5602	ERDS2TJ103	C 10K OHM J 1/4W	R5772	ERDS2TJ182	C 1.8K OHM J 1/4W
R5603	ERDS2TJ103	C 10K OHM J 1/4W	R5774	ERDS2TJ332	C 3.3K OHM J 1/4W
R5604	EROS2CKF7500	M 750 OHM F 1/4W	R5775	ERDS2TJ473	C 47K OHM J 1/4W
R5605	EROS2CKF3651	M 3.65K OHM F 1/4W	R5776	ERDS2TJ563	C 56K OHM J 1/4W
R5606	ERD25FJ331K	C 330 OHM J 1/4W	R5777	ERDS2TJ153	C 15K OHM J 1/4W
R5607	ERDS2TJ103	C 10K OHM J 1/4W	R5778	ERDS2TJ682	C 6.8K OHM J 1/4W
R5608	ERDS2TJ103	C 10K OHM J 1/4W	R5779	ERDS2TJ223	C 22K OHM J 1/4W

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
R5780	ERDS2TJ393	C 39K OHM J 1/4W	B6	TJS2A8350	6P CONNECTOR
R5781	ERDS2TJ393	C 39K OHM J 1/4W	B7	TJS2A8390	10P CONNECTOR
R5782	ERDS2TJ393	C 39K OHM J 1/4W	B8	TJS118590	2P CONNECTOR
R5783	ERDS2TJ104	C 100K OHM J 1/4W	B9	TJS118650	8P CONNECTOR
OTHERS			B14	TJS118590	2P CONNECTOR
M40	ERDS2TC0	C 0 OHM 1/4W	C1	TJS118590	2P CONNECTOR
K69	TES4537	SPRING(TR)	C4	TJS118590	2P CONNECTOR
K70	TES6583	SPRING(IC)SMALL	C9	TJS118650	8P CONNECTOR
M41	TJS1A4331	BNC TERMINAL W/SWITCH	C11	TJS118670	10P CONNECTOR
M42	TJS1A4341	BNC TERMINAL	C12	TJS118650	8P CONNECTOR
△ K73	TJS1A5050	CRT SOCKET	C20	TJS118610	4P CONNECTOR
K72	TJS118150	8P SOCKET(VTR)	C21	TJS118600	3P CONNECTOR
M43	TJS6A8020	1P SOCKET	D2	TJS5A8170	4P CONNECTOR
M44	TJS6A8420	2P SOCKET	D3	TJS1A8140	8P CONNECTOR
M45	TJS8A9040	4P CONNECTOR	D4	TJS1A8080	2P CONNECTOR(L-TYPE)
K38	TMM16497	CLAMPER	D5	TJS1A8160	10P CONNECTOR
M46	TMM81416	CORD BAND(SMALL)	D6	TJS1A8090	3P CONNECTOR
M47	TMM13718	LED HOLDER	D7	TJS1A8080	2P CONNECTOR(L-TYPE)
K30	TUW13917	CONNECTOR BRACKET	D14	TJS5A8530	10P CONNECTOR
M48	TUX14957	TERMINAL BRACKET LEG	D15	TJS5A8150	9P CONNECTOR
M49	TXAJTA2MJQZ	3P CONNECTOR ASSY(A2)	E20	TJS1A8110	TELEPHON JACK
M50	TXAJTB13MJQZ	2P CONNECTOR ASSY(B13)	E23	TJS5A8760	6P CONNECTOR
M51	TXAJTD5MJLZ1	10P CONNECTOR ASSY(D5-G5)	E24	TJS5A8520	10P CONNECTOR
M52	TXAJTF1MJLZ1	4P CONNECTOR ASSY(F1-G1)	E25	TJS1A8090	3P CONNECTOR
M53	TXAJTG4MJLZ1	10P CONNECTOR ASSY(G4-W5)	E26	TJS1A8080	2P CONNECTOR(L-TYPE)
M54	TXAJTL1MJLZ1	8P CONNECTOR ASSY(L1-D1)	F1	TJS1A8100	4P CONNECTOR
M55	TXAJTL18MJLZ	4P CONNECTOR ASSY(L18-A18)	F21	TJS1A8090	3P CONNECTOR
K29	XTN26+10B	SCREW	F22	TJS1A8100	4P CONNECTOR
K21	XTV3+10AFZ	SCREW	F29	TJS5A8520	10P CONNECTOR
K20	XTV3+8J	SCREW	F33	TJS5A8170	4P CONNECTOR
M56	XTWT983G	SCREW	△ F40	TJS1A8090	3P CONNECTOR
K6	XYN3+F12	SCREW	△ F801-1	TJC6320	FUSE HOLDER
A5	TJS1A9790	6P CONNECTOR	F801-2	TJC6320	FUSE HOLDER
A6	TJS1A9790	6P CONNECTOR	G1	TJS1A8100	4P CONNECTOR
A7	TJS1A9830	10P CONNECTOR	G4	TJS1A8160	10P CONNECTOR
A8	TJS118610	4P CONNECTOR	G5	TJS1A8160	10P CONNECTOR
A11	TJS118670	10P CONNECTOR	G26	TJS5A8150	9P CONNECTOR
A12	TJS118650	8P CONNECTOR	G27	TJS5A8520	10P CONNECTOR
A14	TJS6A8160	10P CONNECTOR	JK522	TJS1A7210	1P JACK(HEADPHONE)
A15	TJS6A8570	9P CONNECTOR	L1	TJS118650	8P CONNECTOR
A16	TJS6A8560	4P CONNECTOR	L18	TJS118610	4P CONNECTOR
A17	TJS118600	3P CONNECTOR	W1	TJS2A8340	5P CONNECTOR
A18	TJS118610	4P CONNECTOR	W2	TJS2A8350	6P CONNECTOR
A22	TJS118610	4P CONNECTOR	W3	TJS2A8340	5P CONNECTOR
A23	TJS5A9490	6P CONNECTOR	W4	TJS2A8350	6P CONNECTOR
A24	TJS6A8160	10P CONNECTOR	W5	TJS1A8160	10P CONNECTOR
A26	TJS6A8570	9P CONNECTOR	△ DL601	EFDEN645A61F	CERAMIC FILTER
A27	TJS6A8160	10P CONNECTOR	S801	ESB99857V	SWITCH
A29	TJS6A8160	10P CONNECTOR	S3301	EVQR4AL13	SWITCH
A33	TJS6A8560	4P CONNECTOR	S4301	TSE10328	SWITCH
A35	TJS118590	2P CONNECTOR	S4302	TSE80391	SWITCH
A36	TJS118590	2P CONNECTOR	S4303	TSE383	SWITCH
A40	TJS118600	3P CONNECTOR	S4304	TSE80391	SWITCH
A51	TJS118590	2P CONNECTOR	S4305	TSE80382	SWITCH
B1	TJS1A9780	5P CONNECTOR	S5101	TSE10430	SWITCH
B2	TJS1A9790	6P CONNECTOR	S5102	TSE10431	SWITCH
B3	TJS1A9780	5P CONNECTOR	S5103	ESD323251	SWITCH
B4	TJS1A9790	6P CONNECTOR	X601	TSS2002D	CRYSTAL OSCILLATOR
B5	TJS2A8350	6P CONNECTOR	X602	TSS2026M	CRYSTAL OSCILLATOR

Service Manual

Colour Video Monitor

BT-H1450Y/YG

G16M Chassis

YG.....U.K. Only

Supplement-1

Subject: Parts change

Please file and use this supplement manual together with the service manual for Model No. BT-H1450Y/YG, Order No. VED9105066C2.

We have changed the parts, therefore please see this supplement service manual for the schematic diagram.

Reason: Improvement for power source interfere and performance

Replacement parts list

Ref. No.	Part No.		Description
	OLD	NEW	
IC802	UPC2412HF	—	
IC1603	—	AN608P	INTEGRATED CIRCUIT
IC5303	MC14052BCP	TC4052BP	INTEGRATED CIRCUIT
IC5401	LM1881N	—	
Q1612	2SC3311AQ	—	
Q5418	2SC3311AQ	—	
Q5422	—	2SA1309AQ	TRANSISTOR
D372	—	MA167	DIODE
D373	—	MA167	DIODE
D374	—	MA700	DIODE
D375	—	MA700	DIODE
D376	—	MA700	DIODE
D377	—	MA167	DIODE
D617	—	MA4130H	DIODE

Panasonic

Ref. No.	Part No.		Description
	OLD	NEW	
D3324	MA4100L	MA4300M	DIODE
D3326	MA4100L	MA4270H	DIODE
D3351	MA165	—	
D3362	—	MA4130H	DIODE
D3366	MA165	—	
D3372	—	MA165	DIODE
D3373	—	MA165	DIODE
D3374	—	MA150	DIODE
D3375	—	MA4082H	DIODE
D4308	—	MA4130H	DIODE
D5326	MA700	—	
D5406	MA165	—	
L201	EXCELD35C	—	
△ L557	TSC925-4	—	
L5306	TLU180J186	TLU120J186	PEAKING COIL
LC1301	TLK66009-1	TLK156060E	DEGAUSS COIL
LC1303	TLK66056-1	TLK156059E	DEGAUSS COIL
LC1304	TLK66009-1	TLK156060E	DEGAUSS COIL
C657	—	ECEA1EU4R7	E 4.7μF 25V
C822	—	ECKD2H471KB5	C 470pF K 500V
C1344	—	ECQB1H102JF	P 1000pF J 50V
C1634	—	ECEA1EN4R7S	E 4.7μF 25V
C3327	ECKF1H103ZF	—	
C3339	ECEA1CU101	ECEA1CU100	E 10μF 16V
C3371	—	ECKF1H103ZF	C 0.01μF Z 50V
C3372	—	ECQV1H334JZ	P 0.33μF J 50V
C3380	—	ECKF1H103ZF	C 0.01μF Z 50V
C3381	—	ECKF1H472ZF	C 4700pF Z 50V
C5304	ECEA1CU100	ECEA1CN100S	E 10μF 16V
C5312	ECEA1HN010S	ECEA1EN3R3S	E 3.3μF 25V
C5316	ECQV1H473JZ	ECCF1H151J	C 150pF J 50V
C5370	—	ECCF1H151J	C 150pF J 50V
C5406	ECQV1H333JZ	ECQB1H472JF	P 4700pF J 50V
C5409	ECCF1H101J	—	
C5412	ECQV1H104JZ	—	
C5435	—	ECEA1HN010S	E 1μF 50V
C5436	—	ECQB1H153JF	P 0.015μF J 50V
C5495	—	ECEA1CU100	E 10μF 16V
C5768	ECQV1H823JZ	ECQV1H104JZ	P 0.1μF J 50V

J00980

ORDER NO. VED9410195S2

Service Manual

Colour Video Monitor

Supplement

BT-H1450Y/YG
BT-S1460Y/YG
TC-1470Y/YG

YG ... U.K. Only

FT-2900[Ⓐ]/2900G[Ⓐ]

G ... U.K. Only

Subject: Revisions to the blue signal only function and the circuits.
The circuit diagrams and Instruction Book have also been revised.

Please file and use this supplement manual along with the service manual for the below table.

This supplement issue contains the modifications of the four models as same content and Supplement Number of these models are shown as follows.

Please use a copy when requiring for each model.

Service Manual for Reference			
Model No.	Order No.	Supplement No.	Chassis No.
BT-H1450Y/YG	VED9105066C2	Supplement-3	G16M
BT-S1460Y/YG	VED9109073C2	Supplement-3	G16M
TC-1470Y/YG	VED9109075C2	Supplement-3	G16M
FT-2900 [Ⓐ] /G [Ⓐ]	VED9110078C2	Supplement-1	G16M

Function

OLD	NEW
A white screen is displayed if the screen symptom includes a blue signal when the blue signal only switch has been turned on, and a black screen is displayed when a blue signal is not included.	The screen symptom becomes blue screen when the blue only switch is on.

Panasonic

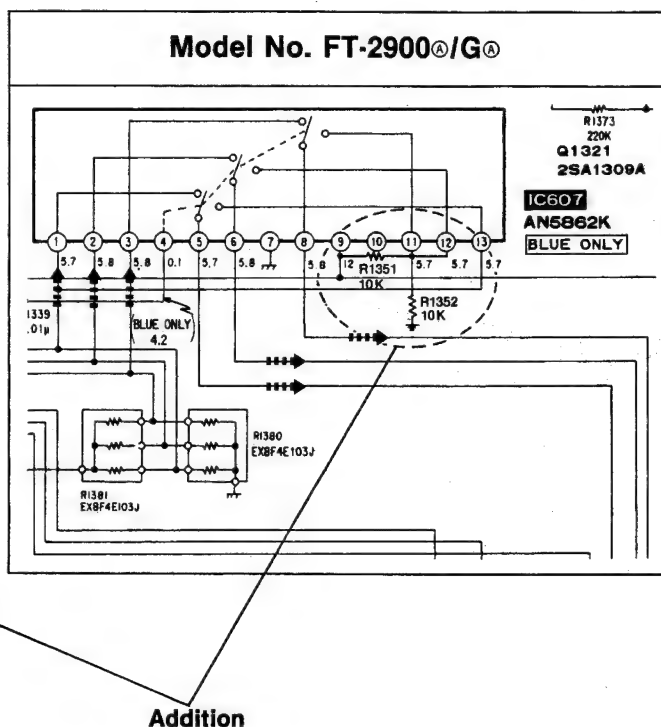
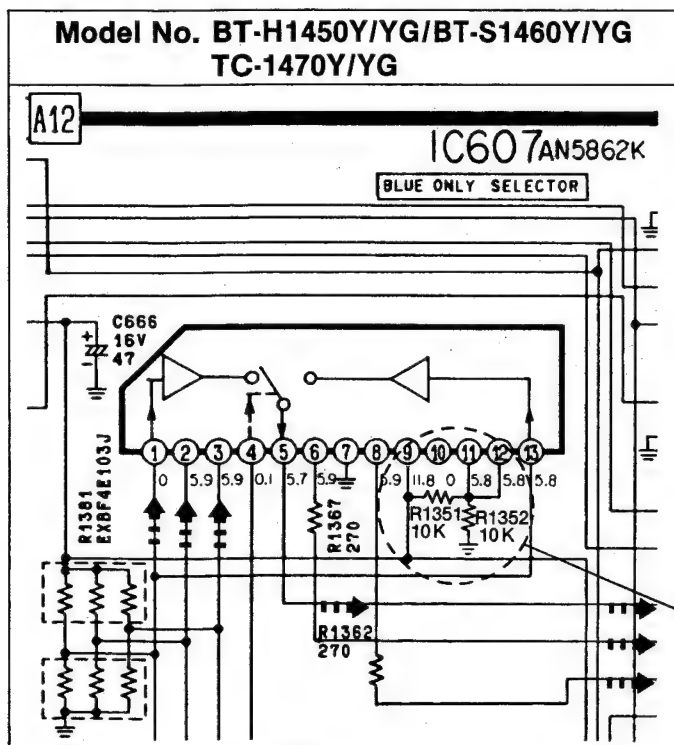
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△ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Schematic diagram (A-P.W. board)

Model No.	A-P.W. board Part No.	On Page	Model No.	A-P.W. board Part No.	On Page
BT-H1450Y/YG	TNP190103HZ	Supplement-1 Page 10	TC-1470Y/YG	TNP190103FZ	54
BT-S1460Y/YG	TNP190103DZ	58	FT-2900A/GA	TNP190146ZA	65

**Replacement parts list**

Ref. No.	Part No.		Description
	OLD	NEW	
R1351	—	ERDS2TJ103	C 10K OHM J 1/4W
R1352	—	ERDS2TJ103	C 10K OHM J 1/4W
M33	TQB510098-2	TQB510098-3	INSTRUCTION BOOK (BT-H1450Y/YG)
M42	TQB510157-1	TQB510157-2	INSTRUCTION BOOK (BT-S1460Y/YG)
M39	TQB510159-1	TQB510159-2	INSTRUCTION BOOK (TC-1470Y/YG)
M52	TQB510161-3	TQB510161-4	INSTRUCTION BOOK (FT-2900A/GA)

Application time

Application time (Serial No.)	Model No.	Serial No.
	BT-H1450Y/YG	FE4140001~
	BT-S1460Y/YG	FE4110001~
	TC-1470Y/YG	FE4110001~
	FT-2900A/GA	FE4240001~

Service Manual

Colour Video Monitor

BT-H1450Y/YG
BT-S1460Y/YG
TC-1470Y/YG

Supplement

YG ... U.K. Only

FT-2900[Ⓐ]/2900G[Ⓐ]

G ... U.K. Only

Subject: Revisions to the blue signal only function and the circuits.
The circuit diagrams and Instruction Book have also been revised.

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Service Manual for Reference			
Model No.	Order No.	Supplement No.	Chassis No.
BT-H1450Y/YG	VED9105066C2	Supplement-3	G16M
BT-S1460Y/YG	VED9109073C2	Supplement-3	G16M
TC-1470Y/YG	VED9109075C2	Supplement-3	G16M
FT-2900 [Ⓐ] /G [Ⓐ]	VED9110078C2	Supplement-1	G16M

Function

OLD	NEW
A white screen is displayed if the screen symptom includes a blue signal when the blue signal only switch has been turned on, and a black screen is displayed when a blue signal is not included.	The screen symptom becomes blue screen when the blue only switch is on.

Panasonic

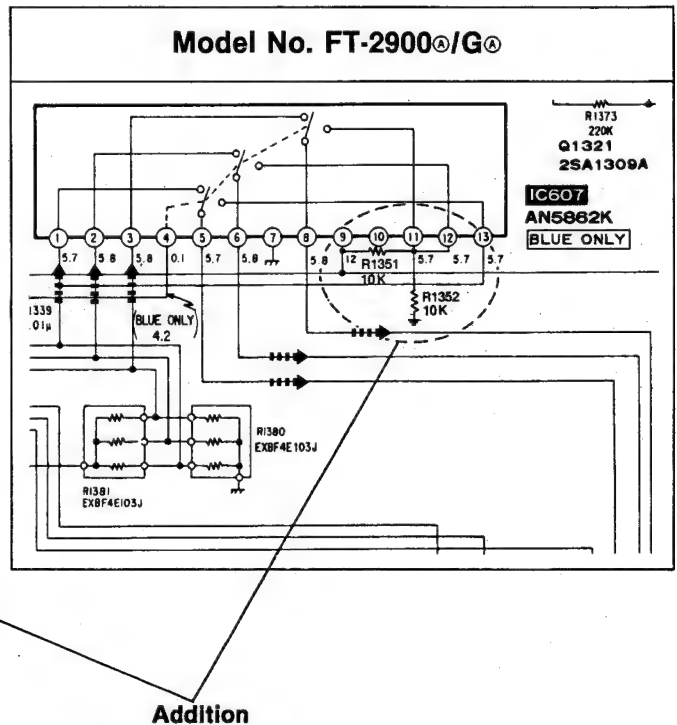
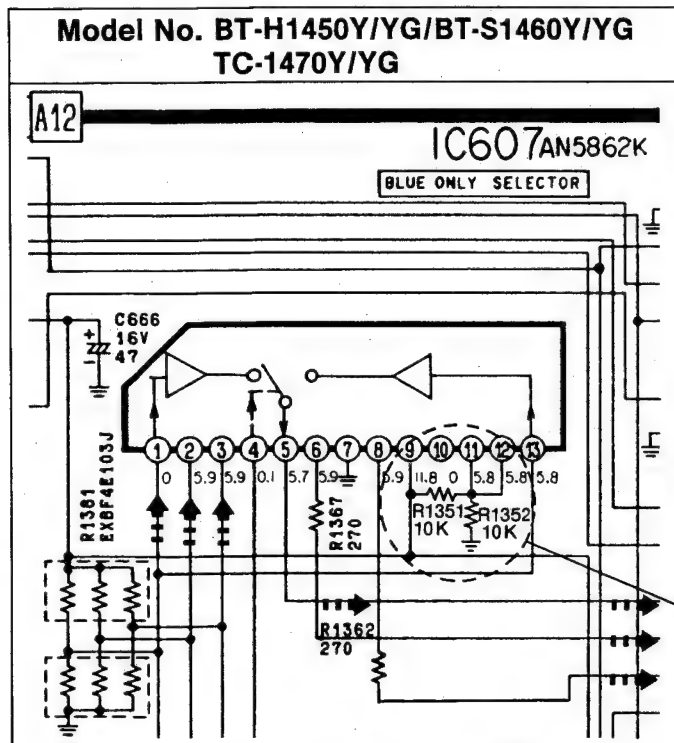
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Schematic diagram (A-P.W. board)

Model No.	A-P.W. board Part No.	On Page	Model No.	A-P.W. board Part No.	On Page
BT-H1450Y/YG	TNP190103HZ	Supplement-1 Page 10	TC-1470Y/YG	TNP190103FZ	54
BT-S1460Y/YG	TNP190103DZ	58	FT-2900A/GA	TNP190146ZA	65

**Replacement parts list**

Ref. No.	Part No.		Description
	OLD	NEW	
R1351	—	ERDS2TJ103	C 10K OHM J 1/4W
R1352	—	ERDS2TJ103	C 10K OHM J 1/4W
M33	TQB510098-2	TQB510098-3	INSTRUCTION BOOK (BT-H1450Y/YG)
M42	TQB510157-1	TQB510157-2	INSTRUCTION BOOK (BT-S1460Y/YG)
M39	TQB510159-1	TQB510159-2	INSTRUCTION BOOK (TC-1470Y/YG)
M52	TQB510161-3	TQB510161-4	INSTRUCTION BOOK (FT-2900A/GA)

Application time

Application time (Serial No.)	Model No.	Serial No.
	BT-H1450Y/YG	FE4140001~
	BT-S1460Y/YG	FE4110001~
	TC-1470Y/YG	FE4110001~
	FT-2900A/GA	FE4240001~

Ref. No.	Part No.		Description
	OLD	NEW	
R540	ERD25FJ8R2K	ERQ14AJ8R2	F 8.2 OHM J 1/4W
R682	—	ERDS2TJ101	C 100 OHM J 1/4W
R696	—	ERDS2TJ821	C 820 OHM J 1/4W
△ R888	ERG2SJ683	—	
△ R892	—	ERG2SJ683	M 68K OHM J 2W
R1317	ERD25FJ222K	ERD25FJ821K	C 820 OHM J 1/4W
R1346	ERDS2TJ152	ERDS2TJ102	C 1K OHM J 1/4W
R1347	ERDS2TJ152	ERDS2TJ102	C 1K OHM J 1/4W
R1358	ERDS2TJ681	ERDS2TJ121	C 120 OHM J 1/4W
R1371	—	ERDS2TJ221	C 220 OHM J 1/4W
R1615	ERDS2TJ222	ERDS2TJ331	C 330 OHM J 1/4W
R1677	ERDS2TJ102	ERDS2TJ332	C 3.3K OHM J 1/4W
R1680	—	ERDS2TJ330	C 33 OHM J 1/4W
R3319	ERD25FJ223K	ERD25FJ683K	C 68K OHM J 1/4W
R3338	ERDS2TJ562	ERDS2TJ332	C 3.3K OHM J 1/4W
R3339	EVTF4CA00B14	EVTF4CA00B54	CONTROL B 50K OHM
R3344	EVTF4CA00B53	EVTF4CA00B54	CONTROL B 50K OHM
R3348	ERDS2TJ332	ERDS2TJ102	C 1K OHM J 1/4W
R3349	EVTF4CA00B53	EVTF4CA00B54	CONTROL B 50K OHM
R3352	ERDS2TJ333	—	
R3354	EVTF4CA00B33	EVTF4CA00B54	CONTROL B 50K OHM
R3378	EROS2CKF1801	EROS2CKF3301	M 3.3K OHM F 1/4W
R3381	EVTF4CA00B25	EVTF4CA00B15	CONTROL B 100K OHM
R3421	ERDS2TJ471	EROS2CKF4700	M 470 OHM F 1/4W
R3422	ERDS2TJ471	EROS2CKF3900	M 390 OHM F 1/4W
R3423	ERDS2TJ471	EROS2CKF4300	M 430 OHM F 1/4W
R3440	ERDS2TJ222	ERDS2TJ102	C 1K OHM J 1/4W
R3453	—	ERDS2TJ101	C 100 OHM J 1/4W
R3495	—	ERDS2TJ391	C 390 OHM J 1/4W
R3496	—	ERDS2TJ223	C 22K OHM J 1/4W
R3497	—	ERDS2TJ103	C 10K OHM J 1/4W
R3498	—	ERDS2TJ822	C 8.2K OHM J 1/4W
R4318	ERDS2TJ471	ERDS2TJ391	C 390 OHM J 1/4W
R4319	ERDS2TJ561	ERDS2TJ151	C 150 OHM J 1/4W
R5341	ERDS2TJ103	—	
R5382	ERDS2TJ124	ERDS2TJ683	C 68K OHM J 1/4W
R5383	ERDS2TJ124	ERDS2TJ683	C 68K OHM J 1/4W
R5405	ERDS2TJ151	ERDS2TJ271	C 270 OHM J 1/4W
R5407	ERDS2TJ124	ERDS2TJ334	C 330K OHM J 1/4W

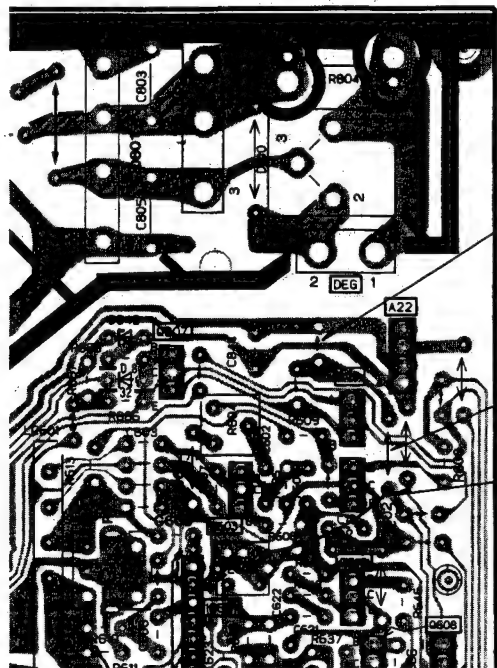
Ref. No.	Part No.		Description
	OLD	NEW	
R5413	ERDS2TJ392	—	
R5424	ERDS2TJ102	—	
R5425	ERDS2TJ681	ERDS2TJ392	C 3.9K OHM J 1/4W
R5426	ERDS2TJ153	ERDS2TJ123	C 12K OHM J 1/4W
R5429	ERDS2TJ334	—	
R5430	ERDS2TJ682	ERDS2TJ563	C 56K OHM J 1/4W
R5431	ERDS2TJ102	—	
R5432	ERDS2TJ103	ERDS2TJ223	C 22K OHM J 1/4W
R5454	ERDS2TJ473	ERDS2TJ563	C 56K OHM J 1/4W
R5475	ERDS2TJ222	—	
R5476	ERDS2TJ103	ERDS2TJ331	C 330 OHM J 1/4W
R5477	ERDS2TJ472	ERDS2TJ561	C 560 OHM J 1/4W
R5497	—	ERDS2TJ392	C 3.9K OHM J 1/4W
R5498	—	ERDS2TJ154	C 150K OHM J 1/4W
R5499	—	ERDS2TJ222	C 2.2K OHM J 1/4W
R5784	—	ERDS2TJ152	C 1.5K OHM J 1/4W
K1	TKE1316B01	TKE1316J01	ESCUTCHEON ASS'Y
K2	TKU589100	TKU589101	REAR COVER
K3	TKC131127	TKC131127-1	METAL CABINET
K4	TKP1313851-2	TKP1313852-2	TERMINAL BOARD PANEL
K30	TUW13917	TUW13917-1	CONNECTOR BRACKET
K34	TMW13110	TMW13110-2	FRONT BRACKET
K35	TMX13101	TMX13101-1	CHASSIS BRACKET (M)
K57	TNP110144	TNP110144BZ	PC BOARD W/COMPONENT (L)
K60	TNP110315ZB	TNP110315AB	PC BOARD W/COMPONENT (P)
K61	TNP190103BZ	TNP190103HZ	PC BOARD W/COMPONENT (A)
M14	TXAJTA8MJLZ	TXAJTA8MJRZ	2P-2P CONNECTOR ASS'Y
M30	TPD139327	TPD139327-1	FILLER (FRONT)
M33	TQB510098	TQB510098-1	INSTRUCTION BOOK
M34	TQB817002-1	—	SAFETY SHEET
M37	TQD6718063-1	—	WARRANTY CARD
M40	—	TQF87256	WARNING LABEL
M41	—	TQF81735	GROUND MARK LABEL
A40	TJS118600	—	
F40	TJS1A8090	—	

Circuit boards

(On page 35, 36)

A-P.W. board TNP190103HZ

(Foil side)

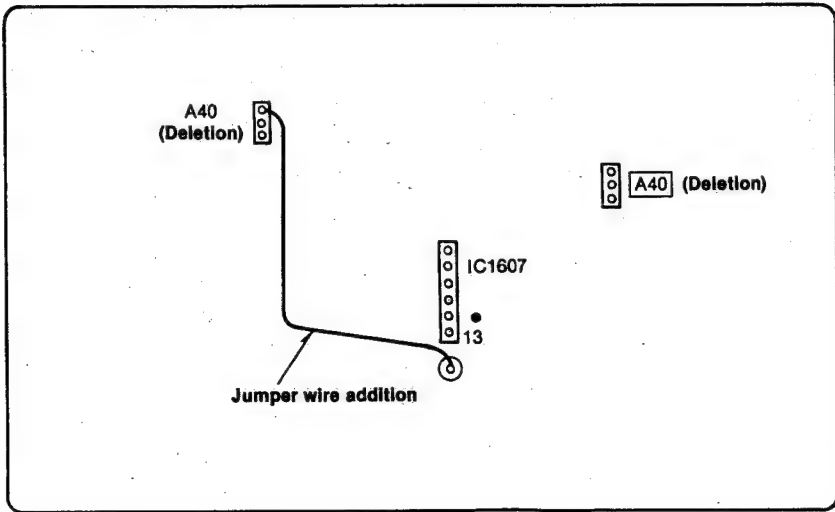


J27 Addition (Component side)

J14 Addition (Component side)

Jumper wire addition

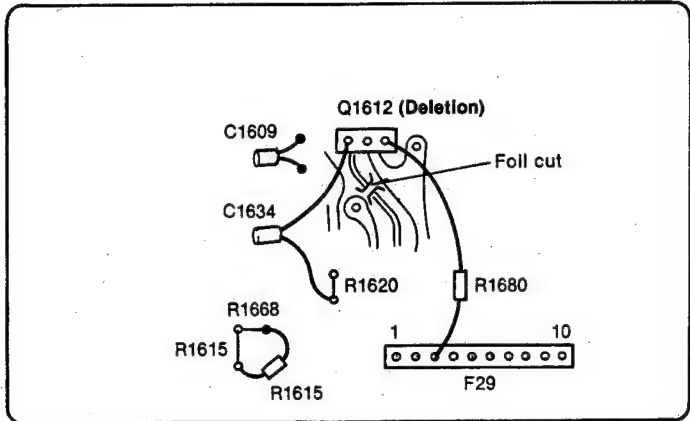
(Component side)



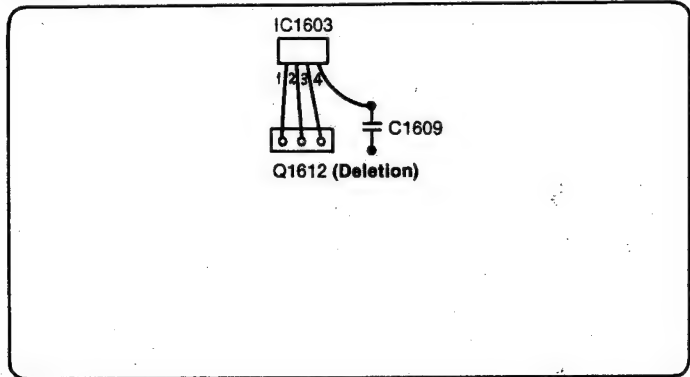
(On page 42, 43)

F-P.W. board TNP110144BZ

(Foil side)



(Component side)



Correction of measurements and adjustments

(On page 31)

CUT OFF ADJUSTMENT (L-P.W. board)

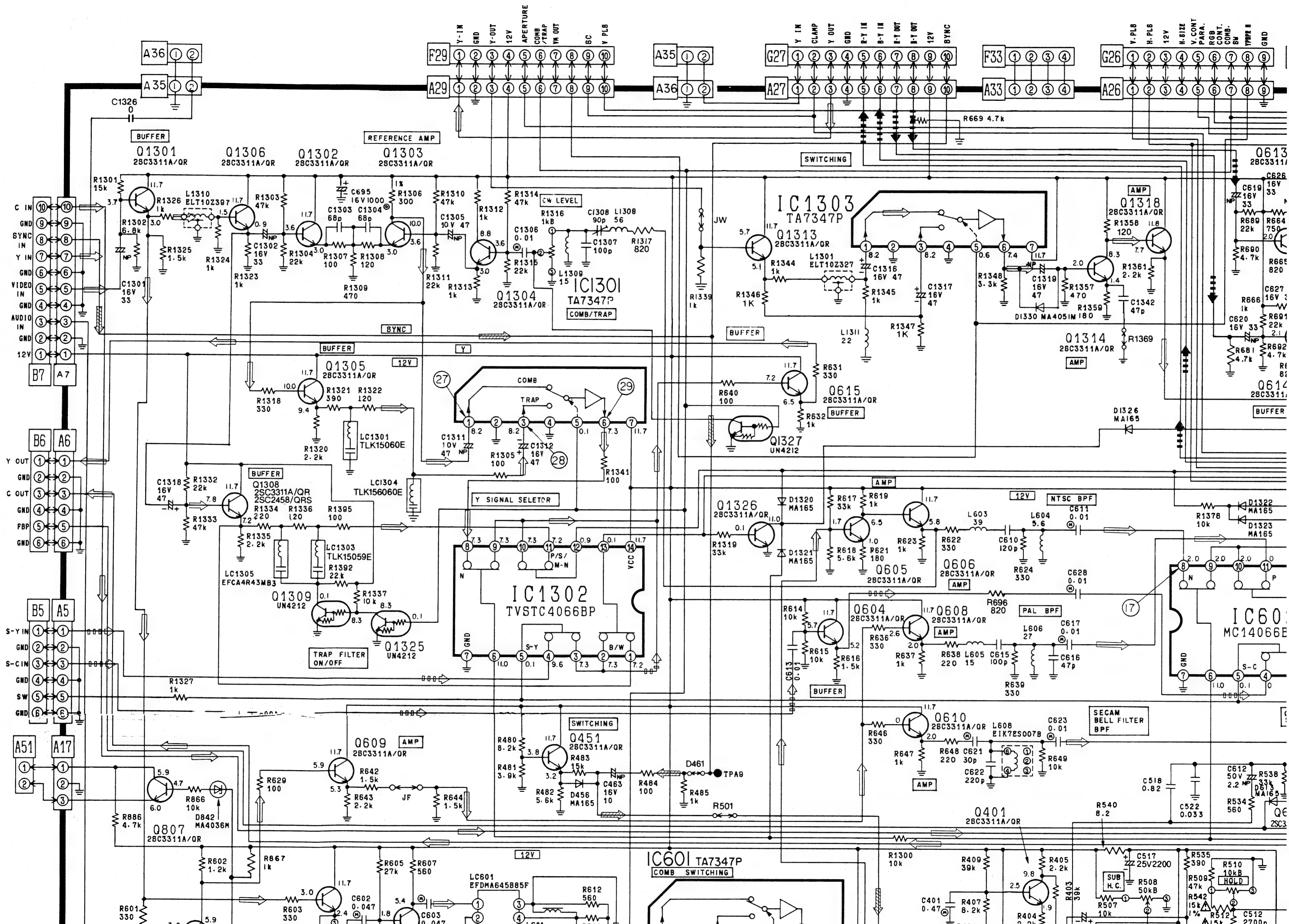
1. EQUIPMENT TO USED

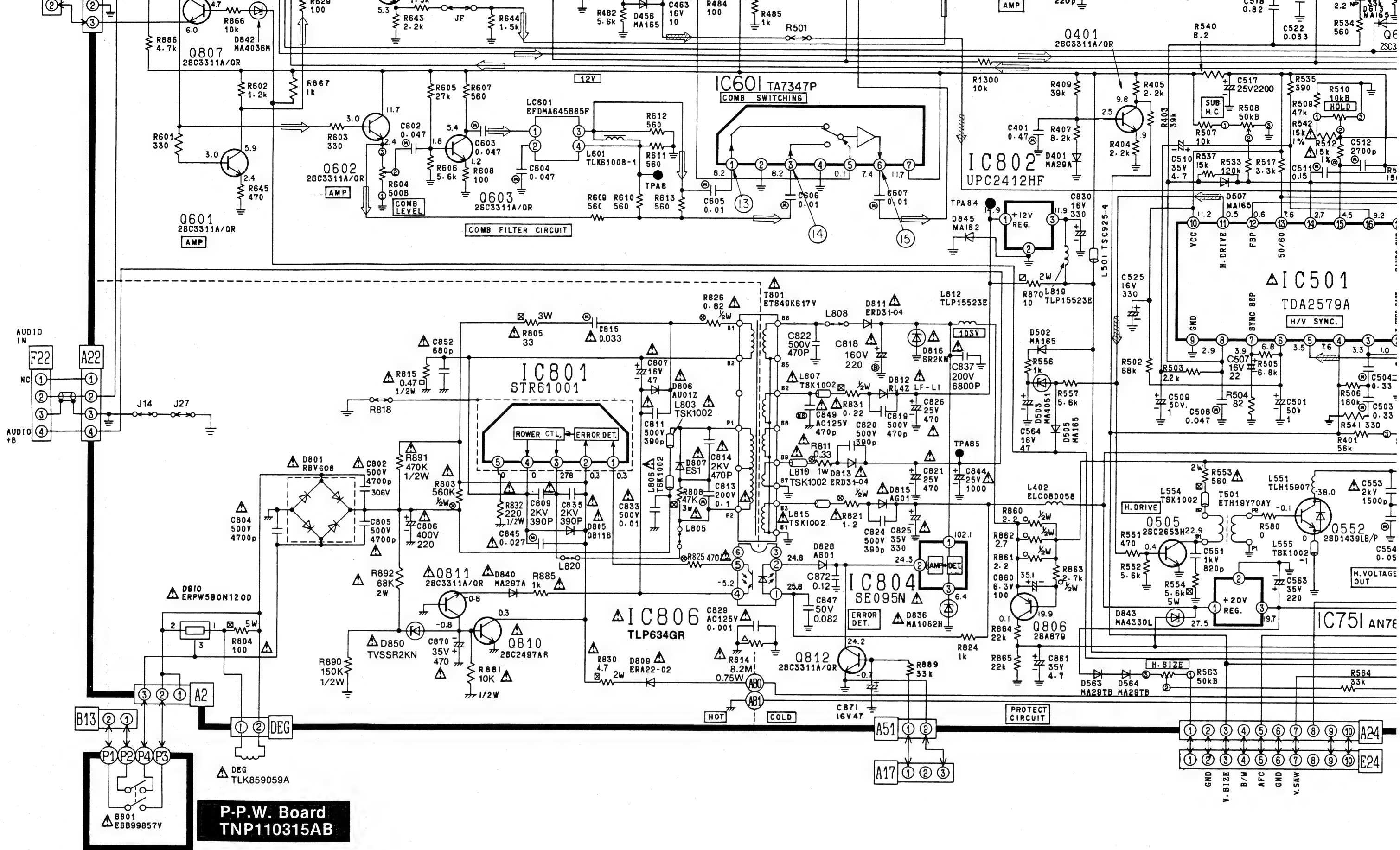
Oscilloscope
Video Generator

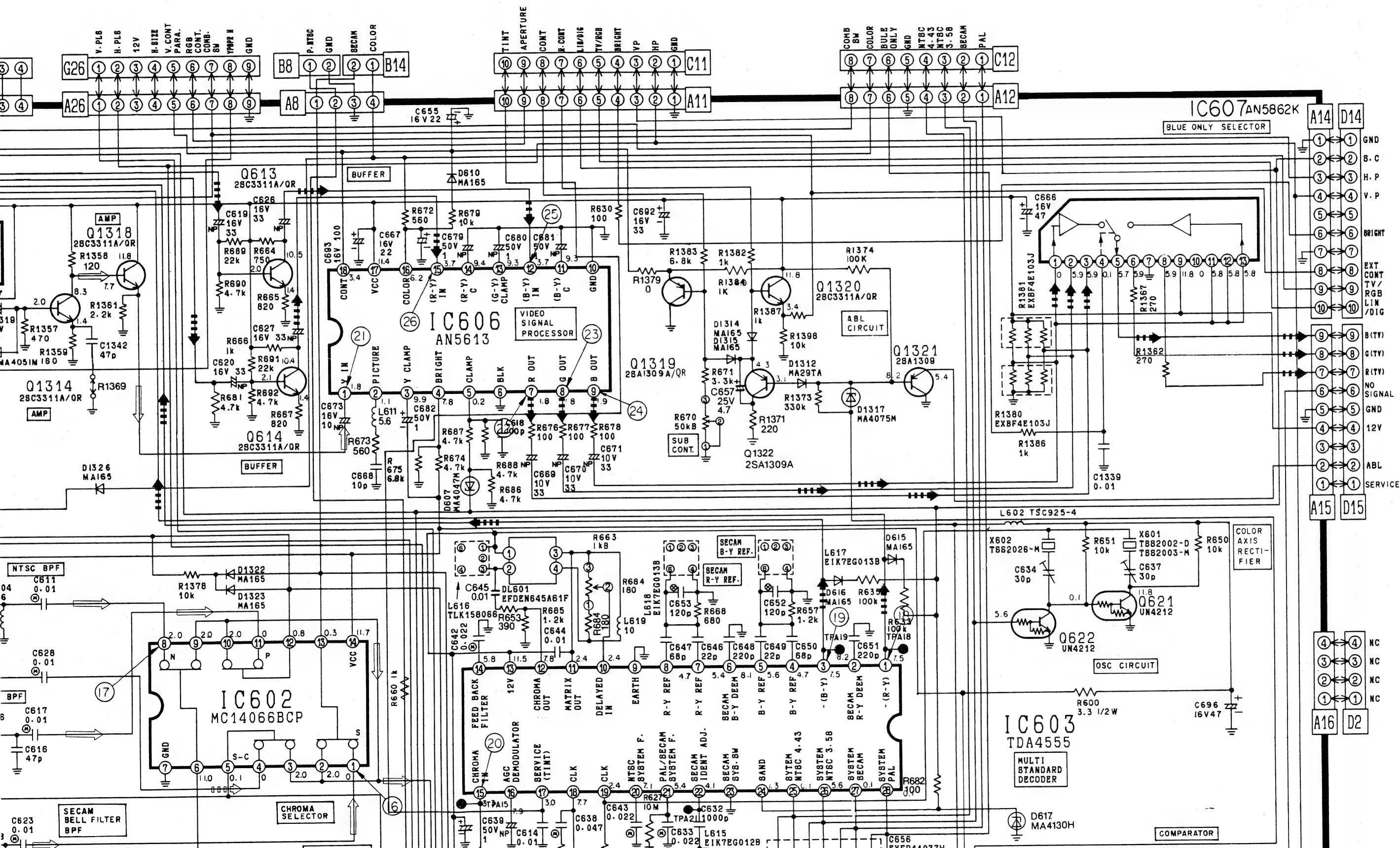
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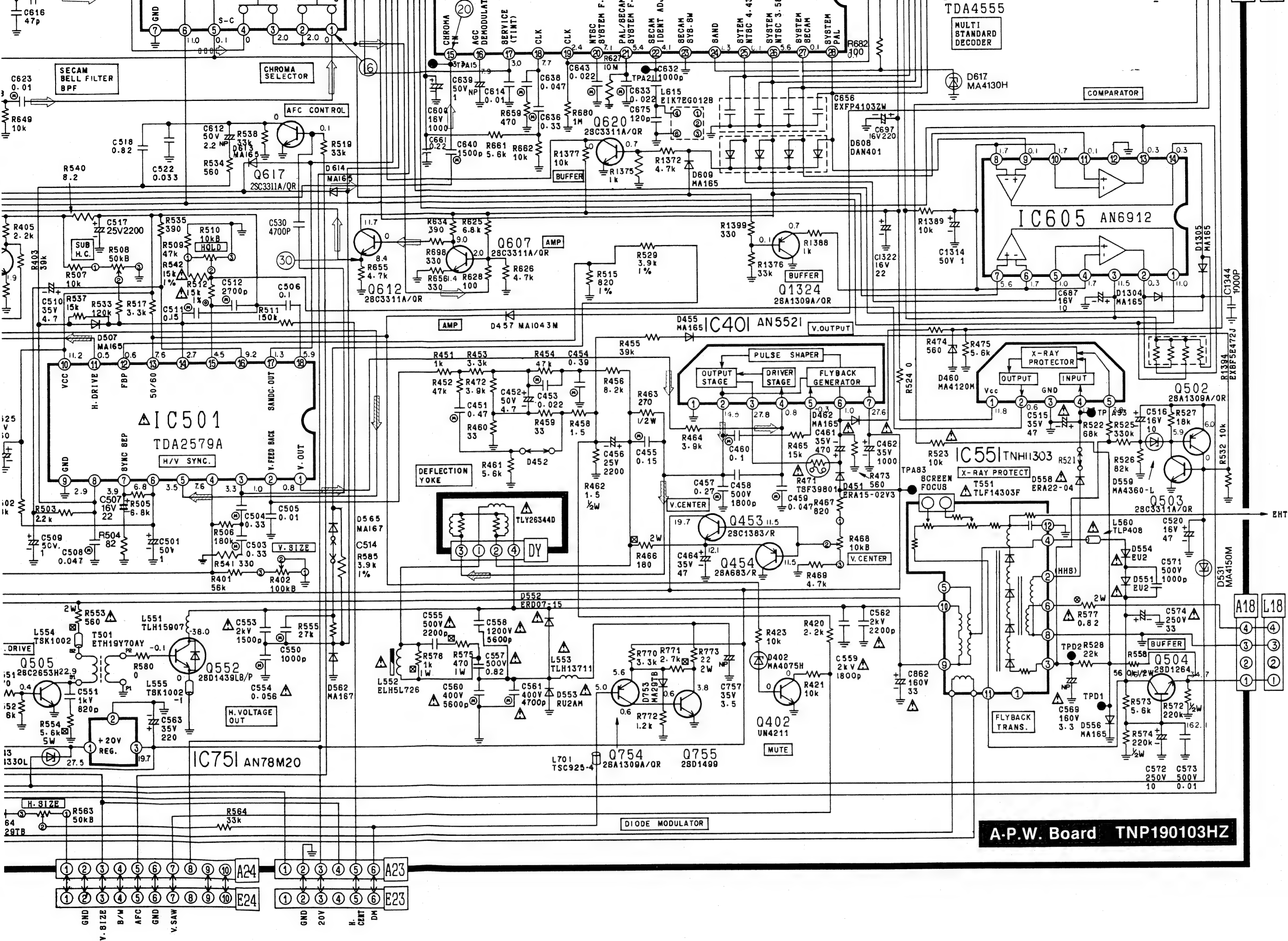
R3349 (R Drive)	Centre	R Low Light
R3351	Centre	B Low Light
R3366	Centre	B Drive
R3339	Centre	
Colour Temp. Selector	9300° K	

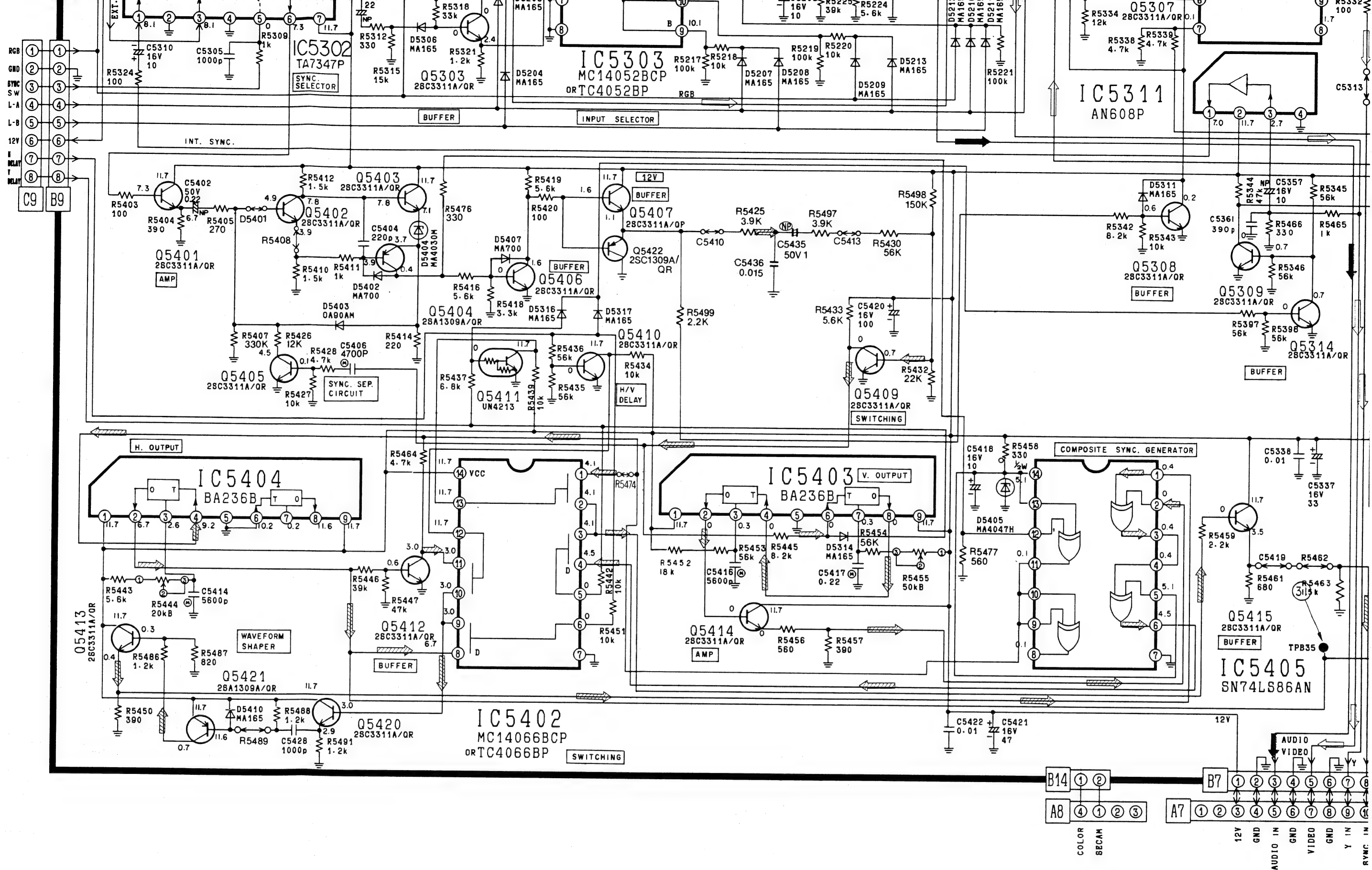
Replace schematic diagram page 57 to 68 with following ones.











Suppl.

